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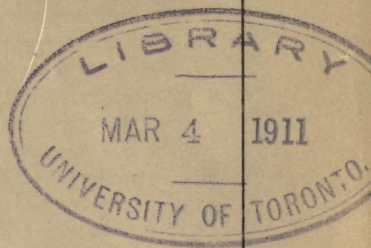
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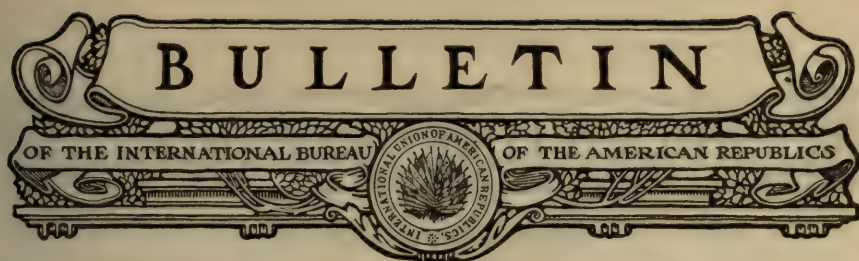
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DR. ROQUE SÁENZ PEÑA,

President-elect of Argentina.

Dr. Roque Sáenz Peña, recently elected President of the Argentine Republic, entered on a political career early in life. In 1876 he was a deputy in the state legislature of Buenos Aires and the following year was elected its president. In 1881 he made his entry into national affairs as Under Secretary of State in the Ministry of Foreign Affairs, which marks the beginning of his diplomatic career. In 1887 he was appointed Minister Plenipotentiary to the Republic of Uruguay. During this mission he was a member of the special tribunal appointed in 1888 to deal with the Spanish claims against Uruguay, in the same year taking an important part in the International Judicial Congress, of Montevideo, and two years later distinguished himself in the Pan-American Congress of Washington by proclaiming the noble doctrine of America for humanity. Returning shortly to Buenos Aires, he was placed at the head of the Ministry of Foreign Affairs by President Juárez Ceballos. Following the revolution of 1890 he retired from public life for a short time, but upon the marriage of the King of Spain Dr. Roque Sáenz Peña reentered the diplomatic service, being sent to represent his country at this ceremony as the special envoy of Argentina. He also represented his Government in the recent Conference of The Hague, in the Assembly of International Conciliation which met in Paris, and as a special envoy to Uruguay in January, 1910, to negotiate a protocol covering the use of the waters of the River Plate. At the time of his election Dr. Sáenz Peña represented his country as Envoy Extraordinary and Minister Plenipotentiary to Italy and Switzerland.



VOL. XXXI.

JULY, 1910.

NO. 1

THIS issue of the MONTHLY BULLETIN of the International Bureau of the American Republics contains the first section of the Annual Review. Under the names of the different countries, arranged alphabetically, is a careful résumé, prepared from the latest information and data available, of the commercial and economic conditions and progress of each one of the nations forming the International Union of American Republics, of which the International Bureau is the office. There are also incorporated such useful facts in regard to their history, features of government, educational systems, material resources, agricultural, industrial, and mineral development, together with other general matter, as will answer the majority of the inquiries which are constantly received in the Bureau from persons all over the world seeking practical information regarding the American Republics. The data concerning each country, aside from being published in this issue of the BULLETIN along with the corresponding data of other countries, will be printed in pamphlet form for free distribution. There has been such a great demand during the last two years for the Annual Review number and for the individual pamphlets, and they have attracted such widespread attention and appreciation that an extra effort has been made this year to have the information as comprehensive and accurate as possible. A considerable number of the expert statistical staff of the Bureau has been constantly engaged for several months in compiling the material of this Review, and it is hoped that it will accomplish much good in spreading knowledge in regard to all the American nations.

Some mistakes or errors may have been accidentally or unintentionally incorporated in the text, but these will be corrected in a subsequent issue if pointed out. The data, moreover, of some countries are much more comprehensive than of others, but this is no fault of the Bureau, for a special effort has been exerted to get the latest and fullest information from every country. Unfortunately, it has been so difficult to secure up-to-date reports from a few governments that the résumés thereof are not as timely and complete as might be wished.

The large amount of material which must be published, in order to do justice to each one of the Republics, requires that this Review shall be distributed through two numbers, viz, July and August. Only half, therefore, of the data prepared is printed this month. The other half will appear in the August issue.

ARGENTINE REPUBLIC

GEOGRAPHICAL SKETCH.

The Argentine Republic, the third largest of the American Republics, is situated between latitude 22° and 56° south and longitude west of Greenwich 53° and 57° , being bounded by the Republics of Chile, Bolivia, Paraguay, Brazil, Uruguay, and the Atlantic Ocean. It has an area of 1,135,840 square miles, equal to about two-fifths the total area of the United States of America proper, and a population of 6,489,023, or 5.7 per square mile, as against 29.6 in the United States of America.

Stretching over 34° of latitude, the country presents a variety of climate and products, ranging from tropical in the north to arctic in the south, but the larger part of its territory lies within the temperate zone. The broad, fertile plains extending from the Atlantic to the foot of the Andes, occasionally broken by a series of low mountains, afford excellent pasturage for millions of cattle, and nearly all cereals, especially wheat, corn, and oats, as well as linseed and alfalfa, are successfully cultivated. Other industrial articles produced in export quantities are hides and skins of all kinds, and the valuable quebracho wood and its extract. Sugar, cotton, tobacco, and grapes are largely grown, but mostly for home consumption. The mountains contain deposits of silver, copper, and gold, which are as yet exploited to a limited extent only.

HISTORICAL SKETCH.

The Spanish navigator, JUAN DE SOLIS, in search of a passage to the Pacific Ocean, was the first European to explore the Rio de la Plata, in the year 1508 and again in 1515. SEBASTIAN CABOT subsequently explored the country, sailing up the Parana and Paraguay rivers in 1526.

PEDRO DE MENDOZA was appointed Governor of the country by the Spanish Crown in 1536, and founded what is now the city of Buenos Aires. The settlement was, however, destroyed by the Indians, and it was not until the year 1576, when JUAN DE GARAY became Governor, that any serious attempt was again made to colonize the country. The Province of Uruguay, as the entire territory was then called, was placed under the jurisdiction of the Viceroy of Peru, but in 1776 the La Plata country had become of sufficient importance to

warrant the establishment of a separate viceroyalty, and Don PEDRO DE CEVALLOS was appointed Viceroy of the Rio de la Plata Provinces.

In the year 1805 Great Britain, then at war with Spain, attempted to seize the city of Buenos Aires, which had become an important trade center, but the British troops were unsuccessful, and in the following year they temporarily abandoned the contest. Within less than a year, however, the attempt was again made to capture the city, the British being again and finally defeated on July 6, 1807.

The war for independence from Spanish rule began on May 25, 1810, Don MANUEL BELGRANO, General JOSÉ DE SAN MARTIN, and Admiral GUILLERMO BROWN being among the distinguished patriots engaged in the struggle. The Spanish troops were defeated both by water and by land on June 22, 1814, and were obliged to abandon the fort of Montevideo, their last stronghold in the La Plata Provinces.

A constitutional Assembly, which convened at Tucuman, formally declared the independence of the "Provincias Unidas del Rio de la Plata" (United Provinces of the Plata River), on July 9, 1816, and vested the executive authority in a Supreme Director, Don JUAN MARTIN DE PUEYRREDON being elected to that position. The title of the Government was subsequently changed to that of Argentine Republic and later to Argentine Confederation and finally, in the year 1860, to Argentine Nation, which is now its official designation. In the year 1824 the executive power was vested in a President of the Republic, and Don BERNARDO RIVADAVIA was inaugurated as the first executive of this office on February 7, 1825.

The incorporation of the territory now constituting the Republic of Uruguay into the Argentine Confederation resulted in war with Brazil. This war began on December 10, 1825, and lasted until 1827, when a treaty of peace was concluded, on February 20, whereby the independence of Uruguay was guaranteed.

Among the great men of the Argentine Nation may be mentioned Don BARTOLOMÉ MITRE, author, statesman, soldier, and patriot, who commanded the allied forces in the war with Paraguay; Don DOMINGO FAUSTINO SARMIENTO, the great educator, who organized the school system of the Republic; Don NICOLAS AVELLANEDA, who stimulated commerce and industries; and Don JULIO ROCA, who subdued the troublesome Indians of the Chaco and successfully averted a war with Chile which threatened to eventuate as the result of a boundary dispute.

Don MANUEL QUINTANA was inaugurated President of the Republic on October 12, 1904, but died on March 12, 1906, before the expiration of his term of office. He was succeeded by the then Vice-President, Dr. JOSÉ FIGUEROA ALCORTA, whose term of office will expire on October 11, 1910, and who will be succeeded by Dr. ROQUE SÁENZ PEÑA.

CONSTITUTION AND GOVERNMENT.

The Argentine Republic is one of the five American Republics which have adopted the Federal Union of States as its form of government, the others being the United States of America, the United States of Brazil, the United Mexican States, and the United States of Venezuela. All the other American Republics have a unitary or centralized form of government.

The constitution adopted May 1, 1853, modeled closely after that of the United States of America, provides for the usual three branches of government—the legislative, executive, and judicial.

The legislative power is vested in the National Congress, consisting of the Senate and the Chamber of Deputies, the former with 30 members and the latter with 120. Senators are elected by the legislatures of the States, usually called "Provinces," and in the Federal District by a special body of electors, for a term of nine years, two senators being named for each Province and two for the Federal District. The Senate is, however, renewed by thirds every three years. Deputies are elected by direct popular vote, for a term of four years, in the proportion of one for every 33,000 inhabitants. The Chamber of Deputies is renewed by halves every two years.

The President of the Republic, assisted by a cabinet of eight ministers, exercises the executive authority. His salary is 72,000 pesos. The President and Vice-President are elected indirectly, as in the United States, by electors chosen by the people for that purpose, and for a term of six years. Neither the President nor the Vice-President may be elected for a second term immediately following their incumbency of the office. The Vice-President is the presiding officer of the Senate.

The federal judiciary is composed of a supreme court, four courts of appeals and courts of first instance. Each Province has its own judiciary. The supreme court is composed of five judges and the courts of appeals of three judges each, appointed by the President of the Republic. The cabinet consists of the following officials: Minister of the Interior, Minister of Foreign Affairs, Minister of the Treasury, Minister of Justice and Public Instruction, Minister of Public Works, Minister of Agriculture, Minister of War, and Minister of Marine.

INTERIOR GOVERNMENT.

The Argentine Republic is divided into 14 Provinces, 10 Territories, and 1 Federal District, the Provinces being autonomous in their interior government, while the executive authority in the Territories is vested in a governor appointed by the President of the Republic. The Federal District is administered by an *intendente*, or mayor, who is likewise appointed by the President, and assisted by a municipal council elected by the people.

The following are the political divisions of the Argentine Republic:

Federal District of Buenos Aires, capital of the Republic.

Province of—	Capital.
Buenos Aires.....	La Plata.
Catamarca.....	Catamarca.
Cordoba.....	Cordoba.
Corrientes.....	Corrientes.
Entre Rios.....	Parana.
Jujuy.....	Jujuy.
Mendoza.....	Mendoza.
Rioja.....	La Rioja.
Salta.....	Salta.
San Juan.....	San Juan.
Santa Fe.....	Santa Fe.
Santiago del Estero.....	Santiago del Estero.
San Luis.....	San Luis.
Tucuman.....	Tucuman.
Territory of—	
Chaco.....	Resistencia.
Chubut.....	Rawson.
Formosa.....	Formosa.
Los Andes.....	San Antonio de los Cobres.
Misiones.....	Posadas.
Neuquen.....	Chos-Malal.
Pampa Central.....	General Acha.
Rio Negro.....	Viedma.
Santa Cruz.....	Puerto Gallegos.
Tierra del Fuego.....	Ushuaia.

The principal cities, with their population, are: Buenos Aires, 1,247,000; La Plata, 80,000; Cordoba, 60,000; Tucuman, 55,000; Rosario, 150,000; Parana, 30,000; Santa Fe, 33,000; Mendoza, 51,000; Bahia Blanca, 37,000, Corrientes, 20,000. The main seaports are Buenos Aires, Rosario, and Bahia Blanca.

ARMY AND NAVY.

The permanent army of Argentina is composed of 30 infantry battalions, 5 engineer battalions, 1 railway battalion, 9 cavalry regiments, 5 mounted artillery regiments, 5 train sections, 2 mountain artillery regiments, 1 siege artillery regiment, 1 machine-gun company, 1 topography company, 1 company of armorers, 1 administration company, 1 hospital company, and 1 cyclist company. The permanent army numbers about 20,000, including commissioned officers. In addition to the regular army, there is a reserve army of trained men, numbering about 150,000. By the provisions of the law of 1901 compulsory service in the army or navy is required of every Argentine citizen from his 20th to his 45th year, nominally for a period of twenty-five years, although actual service rarely extends beyond one year. Naturalized citizens are exempt from

military duty for a term of ten years after their naturalization. Education of army officers is provided for at the Military College at San Martin, a short distance from Buenos Aires, where ample opportunities for a thorough training are afforded, while the Naval Academy, located in a beautiful park in the suburb of Flores, provides education for the officers of the naval service.

The Argentine navy aggregates over 30 vessels, classified as follows: Three battle ships, 4 armored cruisers of the *Garibaldi* type, 2 monitors, 3 protected cruisers, 2 torpedo cruisers, 2 modern river gunboats, 12 first-class torpedo boats, 10 second-class torpedo boats, and auxiliary ships. The Government contracted in 1909 for the building in the United States of two 28,000-ton battle ships of the *Dreadnought* type. Other vessels projected include 15 destroyers of 850 tons each. The personnel of the navy consists of about 5,500 officers and men. The war strength, however, is much greater inasmuch as the naval reserve force is composed of some 25,000 men.

THE ARGENTINE REPUBLIC IN 1909.

The notable commercial advance of the Argentine Republic in 1909, as in the preceding years, was largely due to increased railway and water transportation facilities. Railway construction and agricultural development have effected a transformation of the fertile prairies, or pampas, of the country into productive fields of cereals and grasses, and large areas of the more arid plains of the higher lands have been converted by means of irrigation into rich pasturable tracts for grazing purposes unexcelled in any part of the world for stock raising.

The political conditions of the nation during the past year were marked by peace and quiet at home and amity and good will abroad. The demarcation of the Argentine-Chilean boundary progressed rapidly, and it is believed that all boundary questions between the two Republics will be settled in 1910. Great activity was shown in preparing for the celebration of the centennial of national independence in Buenos Aires in 1910, all the civilized countries of the world having been invited to participate.

The financial condition of the country in 1909 was most satisfactory, the conversion fund of the nation having increased during that period to the extent of \$30,000,000 gold. Shipments of gold exceeding \$70,000,000 flowed into the country during the year, the greater part of which went into the conversion fund of the Government, swelling the amount at the close of the year to \$173,000,000, the largest conversion fund ever accumulated in the history of the Republic. As compared with 1908 the rate of interest fell, money was plentiful,

and the commercial and industrial development of the country was greatly stimulated.

On the whole 1909 was a good agricultural year, and although the total quantity of cereals produced was below the production of 1908, the increased prices obtained for the products largely offset the disadvantages of the lesser yield. Early in the year the indications of enormous crops of wheat, maize, linseed, and oats were most flattering, but frosts, drought, and locusts damaged the crops and caused a diminution of the harvests, and especially of maize. Excellent crops of sugar cane and grapes were gathered during the year, and notwithstanding the damage caused by excessive rains followed by droughts, the production of wine exceeded that of any former year and a good yield of sugar was obtained.

The foreign commerce of 1909 exceeded that of 1908 by \$61,128,546, while the domestic commerce was greatly in excess of that of 1907 and 1908. The manufacturing industries showed considerable activity in 1909, regardless of strikes and a general scarcity of labor, and the future is most encouraging for the attainment of a long period of steady development in all lines of manufacture.

The railroad development in 1909 was very great, 2,000 miles of new lines having been completed and opened to traffic during the year, and concessions were granted by Congress for the construction of a considerable mileage of additional track. Active work was done on the underground railway at Buenos Aires, the completion of which will play an important part in the development of the capital and metropolis of the country.

The current of immigration set steadily toward the Republic in 1909, although not with the same intensity as in 1908, the immigrants arriving in the former year numbering 232,458 as compared with 303,112 in the latter. Argentina owes much of her wonderful progress and development to the brawn and capital of her immigrants, and perhaps no country in the world at the present time offers greater opportunities and rewards to agriculturists and artisans than does the Argentine Republic, which has so generously opened its doors to all who desire to come and assist in the development of the resources of one of the richest nations of the globe.

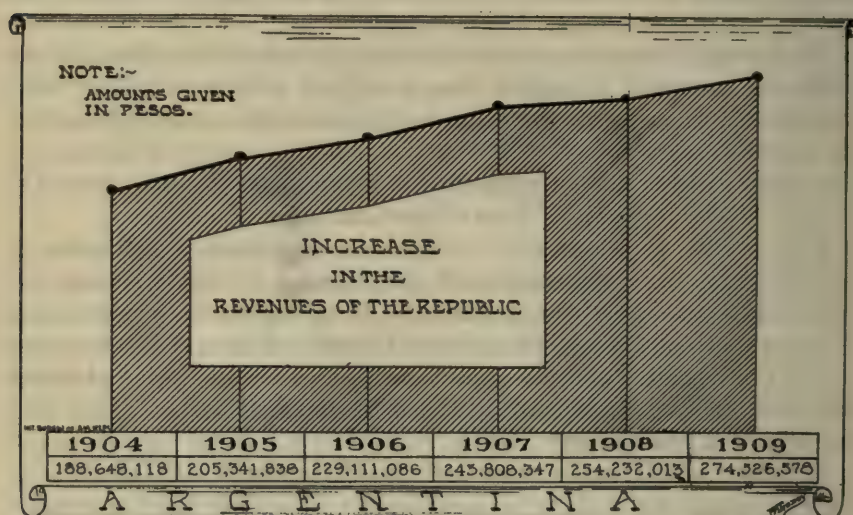
FINANCE.

According to a statement of the Minister of Finance, the total revenues of the Republic for the fiscal year 1909, which corresponds to the calendar year were: Gold revenues, \$73,969,079; paper revenues, 106,415,035 pesos. Reduced to the national paper currency, estimating the gold dollar at 2.2727 paper pesos (the rate fixed by the conversion law of 1902), this represents 274,526,578 pesos. The fol-

lowing comparison shows a steady increase in the revenues of the Republic, which has amounted in six years to nearly 86,000,000 pesos.

	Pesos.
1904	188,648,118
1905	205,341,838
1906	229,111,086
1907	243,808,347
1908	254,232,013
1909	274,526,578

Reduced to gold, the revenue of Argentina for 1909, valuing the peso at 44 cents, was \$120,791,694.



The budget for the year estimated the receipts at 254,776,666 pesos, so that it can be seen that the actual receipts exceeded the estimates nearly 20,000,000 pesos. The budget estimate of expenditures was 257,830,000 pesos.

The public debt on the 31st of December, 1909, was: External debt, \$310,000,000; internal debt, \$87,733,900 and 103,345,300 pesos. For the last three years, the public debt compares as follows:

Year.	External.	Internal.	
	Gold.	Gold.	Paper pesos.
1907	\$319,512,105	\$55,505,700	98,502,240
1908	314,743,608	38,198,800	104,540,700
1909	310,000,000	87,733,900	103,345,300

The increase in the internal gold debt represents the \$50,000,000 loan made at the beginning of 1909 to increase the capital of the Bank of the Argentine Nation, and for construction and equipment of railways and other works of public improvement. Thirty-two million six hundred thousand dollars of the \$50,000,000 borrowed was set apart by law for construction and equipment of railroads and other works of public improvement. Of this amount there was expended during the year \$20,500,000.

Argentine credit constantly improves from year to year. During 1909 the 4 per cent external debt was quoted in London at from 90 per cent to 96 $\frac{1}{4}$ per cent. The new internal \$50,000,000 loan bears 5 per cent interest and according to the Minister of Finance was quoted in Buenos Aires at 102 $\frac{1}{2}$ per cent.

The total debt of Argentina at the beginning of the year 1900, including the external and internal debt, was in round figures \$447,000,000 gold. At the beginning of 1910 it was \$443,205,832. This shows a slight decrease of the debt in ten years, but by no means tells the full story of Argentina's advance in credit. In 1900 the total annual revenues of the Republic were \$64,000,000 gold; in 1909 they were nearly \$131,000,000. It can thus be seen that the debt of 1900 was seven times as great as the annual revenue, while the debt of 1909 is only 3 $\frac{1}{3}$ times the revenue. In other words, the annual revenue of 1900 was 14.3 per cent of the debt, while the annual revenue of 1909 was 27.2 per cent of the debt. A considerable part of the debt is now represented by paying improvements, such as the State railways, Buenos Aires port works, and the Buenos Aires water-works.

For a number of years prior to 1902 Argentina's credit and commerce suffered on account of the inconvertible paper currency. At times the gold premium advanced to an alarming figure. The conversion act established the conversion office through which the Government undertook to maintain the gold premium at 127 per cent, that is, at an exchange ratio of 2.27, thus fixing the value of the paper peso at approximately 44 cents. To do this it was of course necessary to maintain a large gold reserve in the conversion office. This reserve began with the deposit of \$2,843 in gold in 1902, which, with a gold bank credit of \$142,464, made in all \$145,307. At this time the paper circulation was 296,055,093 pesos. The reserve therefore represented only eleven one-hundredths of 1 per cent of guaranteed value of circulation. In 1909 the circulation was 685,150,000 pesos and the gold reserve \$201,000,000, which represents 66 $\frac{1}{3}$ per cent of the guaranteed value of the circulation.

The bank deposits on November 30, 1909, were 1,052,781,958 pesos and \$36,926,969 gold. This represents an increase from December 31 of the preceding year of 241,755,888 pesos and of \$8,388,754 gold.

Discounts and loans of the same date, November 30, 1909, amounted to 965,368,884 pesos and \$31,716,565 gold. This shows an increase for the eleven months of 193,844,803 pesos, paper, and \$911,187 gold.

Cash on hand was 318,354,944 pesos and \$64,264,356 gold. This shows a decrease in paper of 11,806,456 pesos and an increase in gold of \$16,744,219.

The following table shows the general bank movement for four years:

1906.

	Deposits.	Discounts and loans.	Cash on hand.
Paper.....pesos.....	700,300,000	611,800,000	199,400,000
Gold.....	\$23,900,000	\$39,240,000	\$26,210,000

1907.

Paper.....pesos.....	717,169,600	679,357,000	220,770,000
Gold.....	\$29,086,000	\$37,280,000	\$40,027,000

1908.

Paper.....pesos.....	811,026,530	771,524,081	330,161,400
Gold.....	\$28,538,215	\$30,805,378	\$47,520,137

1909 (November 30).

Paper.....pesos.....	1,052,781,958	905,368,884	318,354,944
Gold.....	\$36,926,969	\$31,716,565	\$64,264,356

COMMERCE.

The Argentine Republic was one of the very few countries which in 1908 showed an increase in its foreign trade. This increase was then due entirely to the increase in exports, for there was, in fact, a slight falling off in imports. For the year 1909 there is a further increase in trade amounting to nearly 10 per cent, but which, unlike 1908, shows on both sides of the ledger.

The total foreign trade for the year 1909 was \$700,106,623 as compared with \$638,978,077 in 1908, an increase of \$61,128,546. The values of exports were \$397,350,528 as compared with \$366,005,341 in 1908, and of imports \$302,756,095 as compared with \$272,972,736 for the preceding year. These figures show a trade balance of \$94,594,433 as compared with \$93,032,605 in 1908, an increase of more than a million and a half over the preceding year and greater than any year in the history of the country except 1905, when the exports exceeded the imports by something over \$117,000,000.

The imports, by principal countries of origin, were as follows:

Country.	1908.	1909.	Country.	1908.	1909.
United Kingdom.....	\$93,371,396	\$99,198,269	Uruguay.....	\$2,207,038	\$2,496,611
Germany.....	37,847,076	44,555,770	Holland.....	2,030,030	2,211,110
United States.....	35,597,004	43,068,829	Canada.....	1,806,661	1,891,530
France.....	26,476,917	30,801,132	Paraguay.....	1,509,955	1,660,174
Italy.....	24,913,248	26,868,106	Norway.....	530,780	905,483
Belgium.....	12,753,373	13,570,074	Sweden.....	799,916	850,132
Spain.....	8,618,110	9,326,671	Dutch possessions.....	1,006,611	781,709
Brazil.....	7,285,946	8,177,805	Russia.....	1,307,331	739,915
English possessions.....	6,150,174	6,037,304	China.....	487,237	589,833
Austria-Hungary.....	3,293,500	2,966,802	Peru.....	34,552	511,440
Switzerland.....	1,952,378	2,568,763			

It will be seen from these figures that the United Kingdom has yet a commanding lead over all its rivals, shipping to the Republic goods of a value much greater than those from both the two countries, Germany and the United States, next on the list. The United States remains third, although its percentage of increase is greater than that of either Great Britain or Germany. Per cent of increase: United States, 21 per cent; Germany, 18 per cent; Great Britain, 6 per cent.

The most considerable falling off in trade occurred in the imports from Austria-Hungary, Chile, the Dutch Islands, and Russia. The greatest percentage of increase was in the case of Peru.

The imports under 19 major classifications are as follows:

Classification.	Value.	Classification.	Value.
Live animals.....	\$1,545,853	Other metals and manufactures.....	\$10,210,824
Food products.....	23,014,601	Agricultural implements and machinery.....	16,651,610
Tobacco.....	6,201,028	Railway cars, equipment, rails, etc.; carriages, wagons, automobiles, bicycles, etc.....	31,711,285
Wines, liquors, and other beverages.....	13,410,486	Coal, coke, earthenware and glass products, graphite, asphalt, etc.....	21,758,269
Textiles and manufactures therefrom.....	59,923,699	Building materials.....	28,365,889
Oils.....	11,852,943	Electrical apparatus.....	4,216,914
Chemical and pharmaceutical products.....	10,203,393	Miscellaneous.....	8,257,635
Paints, dyes, etc.....	1,997,105		
Timber, woods, and manufactures thereof.....	7,639,715	Total.....	\$302,756,095
Paper and manufactures thereof.....	6,638,359		
Hides, skins, and manufactures.....	2,581,165		
Iron, steel, and manufactures.....	36,575,232		

Among the principal food imports were cheese, \$1,611,863; sugar, \$1,310,940; rice, \$2,592,651; coffee, \$1,391,715; tea, \$1,032,157; cod-fish, \$616,034; and yerba mate, \$4,866,528.

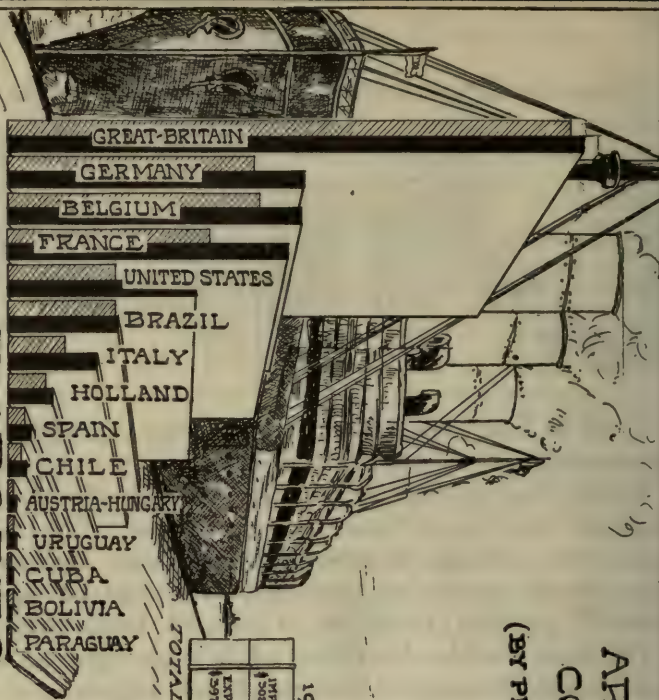
Of textiles, the imports were as follows:

Silks.....	\$5,229,130
Woolens and worsteds.....	11,198,397
Cotton.....	33,761,176
Other fibers.....	9,734,996

About one-half of the wool textile import was in the form of cloth. Unmanufactured cotton to the amount of \$588,615 was imported. Other cotton imports were quilts, covers, etc., \$634,357; laces, \$175,481; sewing thread, \$240,422; canvas and duck, \$185,497;

78,324,723
80,745,066
34,751,994
41,353,332
35,770,188
41,306,799
28,913,730
38,996,004
15,023,238
26,066,790
15,095,578
16,628,413
7,907,857
12,635,710
5,293,670
6,052,583
2,559,603
3,200,259
1,537,507
2,671,567
1,071,154
1,254,599
774,454
1,363,901
289,466
543,958
593,726
498,773
213,666
150,478

EXPORTS



TOTAL COMMERCE

1909		1908	
IMPORTS	\$ 202,184,000	IMPORTS	\$ 171,971,734
EXPORTS	\$ 297,320,320	EXPORTS	\$ 266,003,341

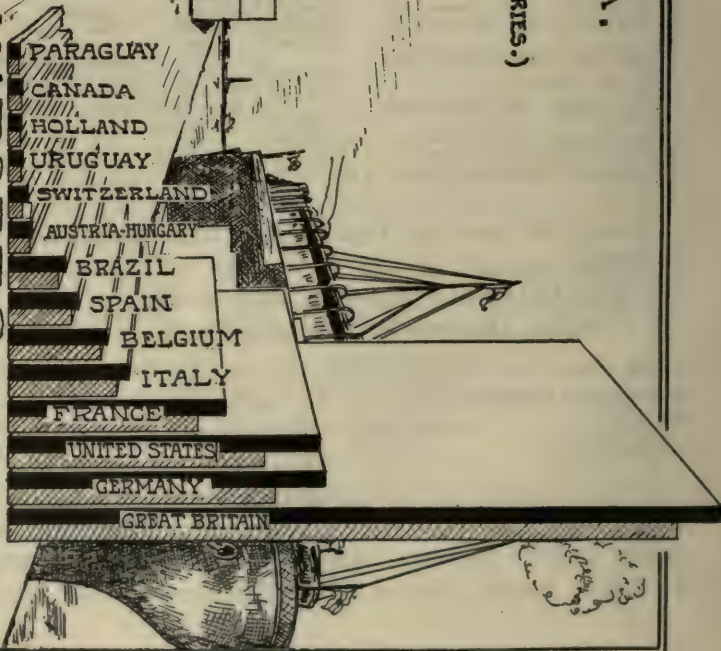
ARGENTINA.
COMMERCE
(BY PRINCIPAL COUNTRIES.)



EXPLANATION

1,660,174
1,509,955
1,891,530
1,806,661
2,211,110
2,030,030
2,496,611
2,207,038
2,562,763
1,952,378
2,966,802
3,293,500
6,177,805
7,285,946
9,326,671
6,616,110
13,570,074
12,753,373
26,068,106
24,913,248
30,801,132
26,476,917
43,068,829
35,597,004
44,555,770
37,847,076
99,198,269
93,371,396

IMPORTS



stockings, \$1,445,103; handkerchiefs, \$630,651. Nearly two-thirds of the total cotton importation was in the form of cotton cloths to the value of \$20,521,604.

Cotton-seed oil was imported to a value of \$489,445; lubricating oils, \$1,885,445; olive oil, \$3,113,426; kerosene, \$2,162,616; and gasoline, \$2,722,312.

Medicinal cotton and gauze were imported to the value of \$126,721.

In paper imports are: Newspaper stock, \$983,191; writing paper, \$462,352; building paper, \$605,238; wall paper, \$203,361.

The principal iron and steel imports were: Wire, to the value of \$4,154,862; nails, \$2,825,473; bar and sheet iron, \$4,056,804; galvanized iron (not including wire), \$7,675,363; bolts and nuts, \$1,534,851; cooking and household utensils, \$989,724; bath tubs, \$432,005; windmills, \$581,472; wire cloth, \$345,833.

Of the agricultural implements and requisites the principal imports were: Plows, \$1,366,885; sacking for bags, \$6,301,149; binding twine, \$1,260,989; reapers, \$1,110,552.

Steel rails to the value of \$8,780,016; railway cars, \$4,960,362; and automobiles, \$793,656, were imported.

Coal to the value of \$15,313,398 and coke to the value of \$373,410 were brought in during the year. About 14 per cent of all the coal was reexported, or, rather, sold to foreign vessels touching at Buenos Aires.

Under building material appear iron tubing, amounting to the value of \$2,342,582; and pine and spruce lumber, \$16,660,298.

The exports, by principal countries of procedure, are as follows:

Country.	1908.	1909.	Country.	1908.	1909.
United Kingdom.....	\$78,324,723	\$80,745,066	Denmark.....	\$426,078	\$1,511,550
Germany.....	34,751,994	41,353,332	Austria-Hungary.....	1,071,154	1,254,599
Belgium.....	35,778,188	41,306,799	Uruguay.....	774,454	1,363,901
France.....	28,913,730	38,996,004	Switzerland.....	536,063	770,738
United States.....	15,023,238	26,066,790	Cuba.....	289,466	543,958
Brazil.....	15,095,578	16,628,413	Bolivia.....	593,726	498,773
Italy.....	7,907,857	12,635,710	Portugal.....	821,663	266,032
Holland.....	5,299,670	6,052,585	Paraguay.....	213,666	150,478
Spain.....	2,559,603	3,200,259	South Africa.....	860,442	111,972
Chile.....	1,537,507	2,671,567			

In imports the percentages of total Argentine trade enjoyed by the principal commercial nations are as follows: United Kingdom, 32.7 per cent; Germany, 14.7 per cent; United States, 14 per cent; France, 10 per cent; Belgium, 4 per cent. In exports the percentages were: England, 20 per cent; Germany, 11 per cent; Belgium, 11 per cent; France, 10 per cent; United States, 6 per cent.

In percentage of increase the United States leads among the principal commercial countries, the exports to the United States for the year having increased 73 per cent, those to France 35 per cent, to Germany 18 per cent, and to the United Kingdom only 3 per cent.

Of the minor countries the most remarkable increase was in the case of Denmark of over 250 per cent. The most considerable falling off in exports was to Portugal and South Africa, although there was a slight decrease in the exports to Paraguay and Bolivia.

The exports are classed primarily under six heads, and in values are as follows:

Stock-raising products.....	\$153, 548, 356
Agricultural products.....	230, 503, 996
Forest products.....	8, 927, 362
Mine products.....	742, 707
Hunting and fishing products.....	752, 020
Miscellaneous.....	2, 876, 087
Total.....	397, 350, 528

The shipment of live animals for the year 1909 was of the value of \$4,992,726. The principal item was cattle, \$4,087,820; then come in order horses, \$286,450; sheep, \$265,908; mules, \$215,160. Of frozen beef the shipments amounted to \$20,943,549; of frozen mutton, \$5,319,612; chilled beef to the amount of \$122,198 was also exported. Hides of goats, kids, sheep, cattle, and horses to the value of \$40,165,681 were exported. Of this amount, \$14,763,693 were flint cattle hides and \$14,214,746 were salted cattle hides.

Wool to the amount of 176,682 metric tons, worth \$59,921,751, was also exported. The output of jerked beef was valued at \$1,325,053. The export value of extract of beef was \$2,702,988; of beef meal, \$1,057,695; of butter, \$1,597,089; of tallow and grease, \$7,573,230; and of bones, \$1,340,239.

Of agricultural products the principal exports were: Oats, \$10,115,161; linseed, \$43,713,358; Indian corn, \$58,374,430; and wheat, \$106,038,940. Wheat flour to the amount of \$5,594,852 and bran to the amount of \$4,483,317 were also exported.

The principal forest product was quebracho. Of this material the shipments were, in extract, \$4,226,333, and in logs, \$4,380,033.

The principal mining product was copper to the value of \$595,307.

Nutria skins to the value of \$502,722 and ostrich plumes to the value of \$163,777 are the principal products classified under "Hunting and fishing."

Under the head of "Miscellaneous products" the principal item is reshipped coal to the value of \$2,483,943.

Out of 209,435 metric tons^a of frozen beef, the whole amount, except 1,057 tons forwarded to Italy, was exported to Great Britain, and of frozen mutton 66,480 tons out of a total of 66,495 tons went to the same country.

^a A metric ton equals 2,205 pounds.

The great bulk of goat and kid skins went to the United States—2,040 tons out of 2,992 tons.

The United States was also the principal purchaser of salted and flint hides, taking of the former 18,685 tons out of 52,719 tons, and of the latter 20,113 tons out of 36,361 tons. Germany purchased 17,359 tons of salted hides and 3,638 tons of flint hides. Nearly all of the horsehides went to Germany—2,614 tons out of 2,826 tons—the United States purchasing only 104 tons.

France was the principal purchaser of wool. Out of a total of 176,682 tons, France took 71,192 tons; Germany, 43,119 tons; Belgium, 19,999 tons; United States, 18,961 tons; United Kingdom, 16,426 tons.

All of the butter went to Great Britain, as did, also, most of the tallow. The United States took 16,668 tons out of 26,223 tons of bones. The crop of flaxseed exported was 887,222 tons, which was taken by England, Germany, and Belgium. The Indian corn crop of 2,273,412 tons went principally to the same three countries, as did also the wheat crop of 2,514,130 tons. The export of bran was 207,238 tons, of which Germany took 154,578 tons; 116,487 tons of flour were exported, of which 102,358 tons went to Brazil. The United States took nearly one-half of the quebracho extract exported—25,693 tons out of 55,493 tons. The United Kingdom took more than one-half of the quebracho in logs and Germany nearly all of the nutria skins.

INDUSTRIES.

Agriculture continues to be the ranking industry of the Republic. Of a total of 19,000,000 hectares^a of land under cultivation in 1909, 5,836,550 were sown in wheat, 3,005,000 in maize, 1,445,600 in linseed, and 572,600 in oats. Figures compiled by the Department of Agriculture in Buenos Aires show the total production of cereals in 1909 to have been 3,825,000 tons of wheat, 800,500 tons of linseed, and 591,000 tons of oats. The exports of wheat, corn, linseed, and oats in 1909 were 2,576,009, 2,336,334, 918,413, and 435,540 tons, respectively.

Viticulture and the growing of sugar cane enjoyed a period of great prosperity in 1909, and while the sugar production was large, it was not sufficient to meet the local demands of the country, and a considerable quantity was imported to make up the deficit. In 1909 the crop of grapes raised was very large, producing a total of 1,600,000 bordelesas^b of wine, the highest yield ever recorded in the history of the country. Great activity was noted in Mendoza and other grape-growing centers of the Republic, and the cultivation of the vine is a profitable and growing industry. There are 3,409 wine

^a Hectare equals 2.47 acres.

^b A cask containing 225 liters or 238 quarts.

factories in the Republic with 45,776 employees, and 37 sugar factories, confined almost exclusively to the Province of Tucuman, with 38,311 employees. The annual output of the wine and sugar industries, respectively, in national money, was 60,558,727 pesos, and 46,716,497 pesos.

The mutton and lamb carcasses exported in 1909 were, in round numbers, 2,723,000, as compared with 3,265,879 in 1908, while the exports of frozen and chilled beef during the same period amounted to 2,584,301, as compared with 2,292,449 in 1908.

The total number of factories in the Argentine Republic in 1909 was 31,996, with a capital of 770,620,977 pesos, national money, and an annual output valued at 1,237,512,300 pesos, national money. The raw material employed in these factories during the year was estimated at 720,151,293 pesos, national money. The employees numbered 327,893, and the motive power employed aggregated 229,692 horsepower. The federal capital has 10,349 factories and 118,315 employees.

Eight large establishments in the country are engaged in slaughtering cattle and sheep for freezing and export. One of these belongs to United States financiers, and the combined capital of the group is about \$20,000,000. A concession has been granted to an American concern to establish a plant with a capacity of 400 head of cattle and 4,000 sheep daily, with exemptions from customs duties on machinery and material up to about \$200,000. The chilled-meat industry is said to pay from 10 to 12 per cent on the capital invested.

Argentine cattle are at the present time in a healthy condition throughout the entire Republic, and bring good prices in the markets of the world. Sheep raising is one of the most important branches of the stock industry, and great flocks are found in the provinces of Buenos Aires, Entre Rios, Cordoba, Santa Fe, Corrientes, and the National Territory of the South.

Many fine horses have been imported into the Argentine Republic for breeding purposes during the last ten years, the last census showing that there are now in the country 40,075 stallions, mares, and horses of pure blood, and 1,405,899 of mixed blood. Imported horses for breeding purposes have notably improved the native breeds, and have created a superior grade of mixed horses peculiarly fitted to the needs of the country.

An excellent opportunity exists for the development of the textile industry, inasmuch as the country is rich in natural and cultivated fiber-producing plants, such as hemp, flax, ramie, and cotton. Considerable quantities of harvest twine, cotton yarn or thread, jute and cotton sacks, and jute cloth are imported into the country. It is estimated that articles could be manufactured in the Republic out of

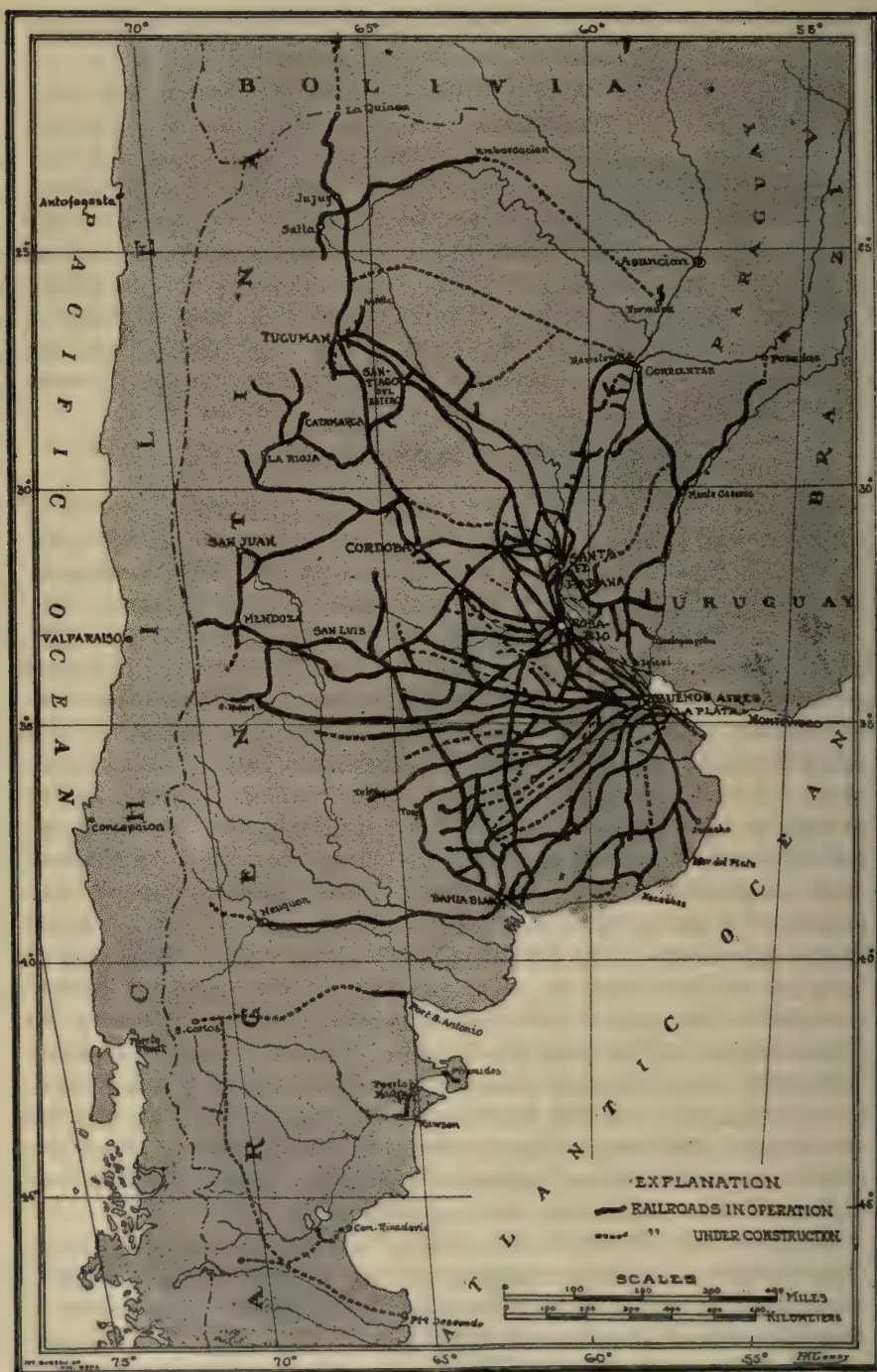
fibers produced in the nation that would have a sale of \$20,000,000 annually.

The Argentine Republic has mineral deposits, but up to the present time they have only been exploited on a small scale, due largely to the lack of transportation facilities. Laws have been enacted to encourage the development of this industry, and railways are being constructed into some of the mountainous districts of the nation. The department of agriculture has authorized a geological survey of the Republic to be undertaken by the division of mines. Gold, silver, tin, lead, copper, iron, zinc, and other minerals have been found in varying quantities in different parts of the Republic. Petroleum deposits, coal, and salt have also been encountered in considerable quantities.

RAILWAYS AND INTERIOR WATERWAYS.

The Argentine Republic is practically covered with a network of railways, which extend in every direction and connect the capital with all points north and south and the ports of Bahia Blanca, Rosario, Parana, Santa Fe, and San Nicolas with the interior. The railway extending north from Buenos Aires via Rosario, Santa Fe, Tucuman, Salta, and Jujuy connects with the Bolivian Railway, and the latter, when completed, will establish direct communication with the capital of Bolivia. The Buenos Aires and Pacific Railway, between Buenos Aires and Mendoza, makes connection with the Transandine Railway at the latter point, which, by the opening of the tunnel through the Andes in April, 1910, established the much-needed railway connection between Chile and Argentina. The last-named road inaugurated a triweekly service between Buenos Aires and Valparaiso, beginning April 12, the schedule time for the trip being thirty-eight hours. The President has promulgated a law, passed by Congress on September 13, 1909, approving the ad referendum contract made with the North-East Argentine Railway Company for connecting its railway with the Paraguay Central by means of ferryboats and other necessary means of communication. He is authorized to expend \$2,167,200 gold in cash, or the equivalent in national securities, in carrying out the provisions of the contract. When this line is completed, direct communication will be established by rail between Buenos Aires and Asuncion, Paraguay.

At the close of 1909 there were in operation 25,506 kilometers (15,849 miles) of railway, representing a capitalization of \$900,000,000. Receipts from operating the roads during the year are estimated at \$105,576,000 and expenses at \$62,272,000. The number of passengers carried was 50,810,000 and the amount of freight transported 31,955,000 tons. In fifty years Argentina has increased her length of railways from 14 miles (23 kilometers) to about 16,000 miles



(25,750 kilometers), and during 1909 the addition was 1,767 kilometers (1,097 miles).

The railways in the Republic have been uniformly profitable to a remarkable extent in past years; every year has shown a big increase in the tonnage carried, this being in the main due to increase in the area of land under cultivation and to the marvelous fertility of the soil. During the last six years this increase of tonnage has been almost 100 per cent. It may be safely predicted that the area under cultivation in the zone of the railways will be doubled in the next ten years, since experience shows that agriculture is fast supplanting stock raising and driving it farther and farther afield. Any increase of the land under cultivation, and more particularly the intensive farming of that already cultivated, will bring increased traffic to the railroads. Such an increase will be brought about by an increase of the people on the land whose crops have to be moved and whose wants have to be supplied.

The majority of the railway lines are owned and operated by private companies, although three of them, viz, the Central Norte, Argentino del Norte, and the Andino railways are owned and operated by the Argentine Government. These last have an extension of 3,533 kilometers, or about 2,195 miles. The Buenos Aires Great Southern, Buenos Aires Western, Buenos Aires and Pacific, and Central Argentine railroads are broad gauge (5 feet 6 inches); the Cordoba Central, Cordoba and Rosario, and Cordoba Central Buenos Aires Extension, which are under the same control, are narrow-gauge (1 meter) roads; and the Entre Rios and Argentine North Eastern are of standard gauge (4 feet 8½ inches).

Buenos Aires, the capital of the Republic, is the focus of the Argentine Railway system, and from that city trunk lines extend to the city of Rosario, 186 miles; to the city of San Juan, capital of the Province of San Juan, 745 miles, which line also connects with the city of Mendoza, tapping the fertile wine district, as well as with the Transandine Railway; and to the city of Cordoba, the capital of the Province of the same name, known as the city of churches and universities, a distance of 433 miles. Another trunk line extends from Buenos Aires in a southwesterly direction, connecting all the more important points in the Province of Buenos Aires with the capital and extending into the Territories of Neuquen and Pampa, 785 miles long.

From Rosario a trunk line extends to the cities of Salta and Jujuy, in the extreme north, connecting at Tucuman, the center of the sugar industry, with a total length of 810 miles. This line runs through the grain belt of the Republic, of which Rosario may be called the center, handling the largest percentage of the grain exports, and second only to Buenos Aires in its total foreign trade. From Corrientes,

the capital of the Province of the same name, a railway 330 miles in length extends in a southeasterly direction through the Province of Corrientes and the fertile region of the Province of Entre Rios, as far as the cities of Concordia and Gualeguaychu, a branch line connecting with the city of Parana, on the Parana River.

The following railways are now in course of construction and will soon be opened to traffic:

Branches of the "Central North" Railway—(1) From Yuto to Embarcacion, (2) Brache to Leales, (3) Bandera to Chaco.

Branches of the North Argentine Railway—(1) Tello to San Juan, (2) Dean Funes to Laguna Paiva, (3) Cebollar to Andalgalá and Mazan to Tinogasta.

The following lines were commenced in 1909 and will be completed within the next five years:

Chaqueño Railways—(1) Formosa to Embarcacion, (2) Barranqueras to Metan, with branch to Quimili.

Patagonian lines—(1) Puerto San Antonio to Lake Nahuel Huapi, (2) Puerto Deseado to Lake Nahuel Huapi.

Lines proposed and shortly to be commenced—(1) Comodoro Rivadavia to Lago de Buenos Aires, (2) Diamante to Curuzu-Cuatia, (3) Algarrobal to Mendoza, (4) Antilla to San Miguel and Alurralde to Colalao.

The Argentine Republic being to a great extent a level plain, has no great system of interior waterways developed. The lengthy stretch of the Parana River, however, from the Rio de la Plata to the junction of the Parana and Paraguay, flows through Argentine territory, and this stream is utilized for an immense and constantly growing traffic within the interior of the country, as well as for a general commerce reaching into the Republics of Paraguay and Brazil. Constant and regular communication is maintained between Corumbá, practically the head of navigation in Brazil, Asuncion, the capital of Paraguay, and Buenos Aires. Tributary to the Paraguay are the rivers Pilcomayo and Bermejo, on which only shallow-draft vessels are employed, but which are susceptible of improvement when the increase of commerce shall demand it. The rivers entering the sea south of Buenos Aires are of great benefit to the region through which they flow, but no decided commerce has as yet been established upon them.

MEANS OF APPROACH.

The Argentine Republic is connected by direct and regular steamship service with all parts of the world. Upward of 35 lines arrive and depart from the port of Buenos Aires, many of them touching regularly also at La Plata, Rosario, and Bahía Blanca. Uruguay, Paraguay, Brazil, and Chile are likewise in constant and regular

communication by water with the capital. Regular passenger and freight service is maintained by several lines running from New York, touching at principal ports in Brazil, and continuing to the River Plate, or making direct transfers at Rio de Janeiro. Opportunity, is offered, therefore, at least once a week for the traveler to reach most of the larger ports of the east coast of South America, with ultimate destination at Buenos Aires. Cargoes can be shipped also from Boston, Baltimore, Charleston, and New Orleans.

The facility of communication between Buenos Aires and the United States suffers in comparison with that between Buenos Aires and the ports of Europe. Liverpool, London, Glasgow, Southampton, Hamburg, Bremen, Antwerp, Havre, Bordeaux, Marseilles, the chief ports of Spain, Portugal, and Italy, the Adriatic, the Black Sea, and the Baltic, are regularly served by modern steamers to meet the growing traffic, both passenger and freight, of the immense activity of this Republic. Australia and New Zealand also have regular steamship service to Argentina. Holland, Sweden, and Russia have recently considered it necessary to establish steamship lines in order to give them directly their share in this commerce. The steamers of most of these lines are modern in every respect; they provide every essential detail for the comfort of the passenger; they adopt the latest mechanical contrivance for the safe and expeditious handling of cargo, and the time of passage between the principal ports is reduced to the minimum. In fact, the harbor of Buenos Aires is one of the marvelous sights of the world on account of the diversity of its traffic and the number of vessels of all nations engaged in it.

The number of foreign vessels entered and cleared at the port of Buenos Aires during the year 1909 was 4,252, representing a total cargo tonnage of 10,367,658. The vessels engaged in the coastwise trade numbered 29,497, with a tonnage of 6,626,314.

Argentina may be approached overland from Chile through the famous Trans-Andine tunnel, which was opened for traffic in April, 1910. This offers through connection between Valparaiso and Buenos Aires every month of the year, and saves a long journey through the Strait of Magellan, which was necessary during the winter months (May to October), when the mountain pass was closed to traffic. With this newly established railroad connection, and with the accelerated steamship service from Panama to Valparaiso on the Pacific, it is now possible, if no time is lost in Panama, to make the trip from New York to Buenos Aires as quickly as it can be made on the Atlantic side. From within the borders of Bolivia a railway runs direct to Buenos Aires; when the Bolivian railway, which is to connect with it, is completed, it will be possible to go by rail from La Paz to the mouth of the River Plate.

POSTS AND TELEGRAPHS.

There are 1,806 post-offices in Argentina, which during the calendar year 1909 handled approximately 730,000,000 pieces of mail matter, as compared with 705,000,000 in 1908. The postal receipts for the year were estimated at 8,977,307 pesos national money. In 1909 the telegraph system, comprising 613 offices, transmitted about 10,800,000 messages over 36,716 miles of wire, collecting for the service 2,964,078 pesos national money. During the year 129 new post and telegraph offices were established and 9 discontinued, leaving 2,419 offices of both classes in operation on December 31, 1909, with a personnel of 10,121 employees.

The telegraph system of the Republic, the efficiency of which has been greatly increased during the year, is owned by the National Government and private companies, the mileage owned by the Government aggregating about 50 per cent of that comprised in the entire system. The international cable service, however, is largely controlled by private companies. These companies have a uniform charge of 8 cents per word on messages transmitted over the lines of the Republic or of other countries adhering to the Argentine Telegraphic Convention. All telegraph offices accept orders, both domestic and foreign, for the immediate transfer of money by telegraph and cable. Telegraph and cable companies will, nevertheless, refuse to accept messages relating to the transfer of money or of securities, unless the identity of the receiver be sufficiently established. For the registration of a private cable address a charge of \$10 for six months is made.

The tariff on simple domestic telegrams is 5 cents for each of the first 10 words, and 3 cents for each additional word up to 100. No message of more than 100 words will be accepted for transmission under any circumstances. Telegrams in languages other than Spanish are accepted at twice the ordinary tariff, and code or cipher messages are taxed at four times the ordinary rate. A rebate of 50 per cent is allowed on telegrams to the press or stock exchange.

Arrangements have been made by the Governments of Argentina and Uruguay for the laying of a cable between the capitals of the two countries, which will be a part of their national telegraphic departments.

An intelligent idea of the completeness and efficiency of the wireless telegraph service on the South Atlantic and the Caribbean Sea can be well grasped by a synthetical study of the systems of Argentina, Brazil, and Venezuela. Argentina, in connection with other interested nations, has taken steps toward the establishment of wireless communication with Europe, Asia, and Africa. The proposed stations will extend from Tierra del Fuego, in the southernmost part of the Republic, along the Argentine, Uruguayan, and Brazilian

coasts, thence via the Fernando de Noronha, Cape Verde, and Madeira islands to Gibraltar, and from there along the Atlantic and Mediterranean coasts to the countries of Europe and to Asia and Northern Africa. The Government has already erected a number of stations at various points along the Argentine coast. The fact that all land stations are connected with Buenos Aires by cable or telegraph lines makes possible the exchange of messages between the capital city and vessels within a radius of two days' journey of the port. One of the largest and most influential newspapers of Buenos Aires has arranged to install a wireless service in its office. Inasmuch as the greater portion of the passenger steamers plying between Latin-American and foreign ports are now equipped with wireless apparatus, there is every reason to believe that the completion of the proposed systems will give the South Atlantic and the Caribbean Sea a wireless service in every way as effective and serviceable as that which the North Atlantic already enjoys.

EDUCATION.

Public instruction in the Argentine Republic is divided into three classes—primary, secondary, and higher education. Primary education is compulsory and free for children between 6 and 14 years of age. In 1909 there were 4,744 public schools for primary instruction in the Argentine Republic maintained by the Federal Government, with an enrollment of 668,534 pupils and 18,061 teachers, aside from the numerous schools supported by the provinces. The schools in the capital and in the territories are under the supervision of a National Council of Education, which occupies a handsome building in the city of Buenos Aires. A school census was taken on May 23, 1909, and showed the number of children of school age in the Republic aggregated 1,200,212. There has of late been a greater proportional increase in the number of children of school age than in the supply of available teachers. Steps have been taken, however, to supply the deficiency by the establishment during 1910 of a number of new normal schools.

Secondary education is not compulsory, but it is practically free, there being only a small fee charged for registration, etc. Sixteen lyceums and 35 normal schools, situated in all the larger cities of the Republic, provide for secondary or preparatory education.

The national universities at Cordoba and Buenos Aires and the provincial universities at La Plata, Santa Fe, and Parana provide higher education, with faculties for law and social sciences, medicine, exact, physical, and natural sciences, and philosophy and literature.

A National School of Commerce, situated in the city of Buenos Aires, instructs expert accountants and translators, while a School of Mines (in the city of San Juan), the Agrarian and Veterinary

School at Santa Catalina (Province of Buenos Aires), the Viticultural School at Mendoza, the National School of Pilots, and the commercial schools at Cordoba and Bahia Blanca are either maintained or subsidized by the National Government.

A number of scholars from each province are annually sent abroad at the expense of the Government to complete their studies at the various colleges and universities of the United States, England, Germany, France, and Italy, there being at the present time 30 of these students in the various universities and colleges of the United States.

Numerous private schools established in every section of the country also provide educational advantages.

The Industrial School of Buenos Aires, which has recently removed to new and extensive quarters, is also maintained by the National Government. It has elaborate workshops, and provides for the teaching of all trades and crafts, being equipped with all the necessary machinery and appliances.

The National Conservatory of Music and the School of Drawing, as well as the School of Art, are other institutions enjoying the official support of the Argentine Government, while a number of libraries are open to the public. The National Museum of History, the Museum of Fine Arts, and the Museum of Natural History at Buenos Aires and the famous Museum of La Plata are other interesting institutions.

GENERAL INFORMATION.

The Government maintains agricultural stations at Tucuman, Bella Vista, San Juan, and Terna. A well-kept botanical garden, situated in the Park of Palermo, Buenos Aires, affords opportunity for the study of horticulture, and the Zoological Garden, in which can be found representatives of all species of animals from all parts of the globe, is one of the most popular resorts of the people of Buenos Aires.

Numerous literary, scientific, industrial, commercial, and agricultural societies exist throughout the country, some of which publish bulletins containing valuable information and arrange lectures and debates, while others, such as the *Sociedad Rural*, hold annual expositions, attended by all the well-to-do Argentinians, and forming a social event of the year.

The press is well represented in the Republic, there being several newspapers printed in even the smallest towns, while in the city of Buenos Aires there are 472 publications of all kinds, 66 of which are dailies, 16 triweeklies, 44 biweeklies, 191 weeklies, and 64 monthlies, others being irregularly issued. The press of the city of Buenos Aires is the most polyglot of any city in the world, there being 412 publications in the language of the country (Spanish), 22 in

Italian, 8 in French, 8 in English, 8 in German, and 1 in Arabic. The Danish, Norwegian, Swedish, Basque, Russian, Dutch, etc., colonies all have their respective organs.

The report of the rector of the University of Buenos Aires, covering the scholastic year 1908-9, shows that the university has now 4,364 students, thus divided: Faculty of law and social sciences, 1,051; faculty of philosophy and letters, 210; faculty of medicine, 2,501; faculty of exact physical and natural sciences, 602. During the next few years the university will be almost entirely rebuilt. Plans are now being prepared for the new sciences building, which will probably be finished in four years; the law school is shortly to erect a large quadrangle on the outskirts of Buenos Aires, while the new José de San Martín Polyclinic will be a most important addition to the recently enlarged medical school.

The University of La Plata, is to institute a six-year course for the training of hydraulic engineers. The University of Córdoba, founded in 1613, is organizing courses in university extensions, and is about to erect a new building.

An executive decree of November 10, 1909, establishes a National Bibliographic Office at Buenos Aires, modeled after the system of the International Institute of Bibliography at Brussels. The new office will be cooperative and international in character and will collect and catalogue the literature and documentary history of the Republic along all lines of historic study and scientific investigation. The office will cooperate as closely as possible with the Brussels Institute and other similar organizations, and in due time will issue publications showing the work accomplished and outlining for the future what it proposes to do in this special field of endeavor.

The President of the Republic has been authorized by the Congress to expend 18,000,000 pesos (\$7,875,000) to improve and extend the sanitary system of Buenos Aires. These improvements will include the construction of a new tower and outlet tunnel at Palermo, filters and settling tanks, pumps, and new buildings, and similar improvements.

The new Carlos Durand Hospital, for males, planned to accommodate 300 persons, has lately been erected in Buenos Aires. The building cost \$550,000, and is one of the most modern and best equipped hospitals in South America.

A new avenue is projected through the city of Buenos Aires, to be called the Avenida Centenario, in honor of the hundredth anniversary of the independence of the Republic. It will cost several million dollars to carry out the project.

The Minister of Agriculture and the Minister of Public Works have decided upon a general system of irrigation works to be established throughout the Republic. A commission has been designated

by the department of agriculture to make a tour of the country with a view of determining in what zones these works are most urgently needed.

The Argentine National Commission has announced the following official exhibitions to be had in Buenos Aires in connection with the Centennial Celebration of 1910: International Agricultural Exhibition, National Industrial Exhibition, International Fine Arts Exhibition, International Exhibition of Hygiene, and International Railways and Land Transport Exhibition. In addition to these exhibitions, the Fourth Pan-American Conference and a large number of other conferences and congresses, both national and international in character, will meet in the same city during the progress of the celebration.



TILTING STONE AT TANDIL, ARGENTINA.

BOLIVIA

GEOGRAPHICAL SKETCH.

The Republic of Bolivia, the third largest of the South American Republics, is one of the few countries on the American continent which possesses no seacoast. Completely surrounded by the Republics of Peru, Chile, Argentina, Paraguay, and Brazil, it extends over 708,195 square miles, equal to the combined area of Washington, Oregon, California, Nevada, Utah, Idaho, and Arizona. It has a population of 2,267,935, or 3.2 per square mile, as against 29.6 per square mile in the United States of America proper, and is the most sparsely populated of any of the American Republics. The vast plateau which extends in length over 500 miles, at an average altitude of 12,000 feet above sea level, and on which are situated most of the larger cities of the Republic, is the most noted topographical feature of the country.

The mountains of Bolivia abound in mineral wealth, tin, silver, gold, copper, etc., and these form the principal products of export. Coffee, cacao, tobacco, sugar cane, and other crops are successfully cultivated. The forests contain numerous species of valuable woods, the best known of which are the *hevea brasiliensis* and the *castilloa elastica*, from which india rubber is gathered; the *erythroxylon coca*, the leaves of which are used for medicinal purposes; and the well-known cinchona tree, the bark of which is used for the manufacture of quinine.

HISTORICAL SKETCH.

PIZARRO having conquered the Inca Empire, invaded the territory of what is now Bolivia in 1532, finding there a race of peaceful Indians, whom he subdued with comparative ease. He divided the country between his brothers, HERNANDO and GONZALO PIZARRO, who soon enforced the customary system of "encomiendas," whereby a certain number of Indian slaves was granted to each settler, and these unfortunates made to labor for the benefit of their oppressor. When the rich silver mines were discovered the country was rapidly settled by numerous adventurers, but so cruel and exacting became the settlers in their greed for gold and silver that the Indians revolted, and in the year 1780, led by TUPAC AMARU, the last descendant of the Incas, killed the Spanish authorities and drove some of the settlers out of the country. They were, however, ultimately overcome, and TUPAC AMARU and all of his family executed in the most barbarous manner.

The first and the last blood spent in the struggle of the Spanish colonies against Spain for independence was shed on Bolivian soil. This contest began on March 25, 1809, when the inhabitants of La Paz deposed the Spanish authorities, and ended when independence was finally achieved in the year 1825 through the combined efforts of BOLÍVAR, SAN MARTÍN, and SUCRE.

The battle of Ayacucho, December 9, 1824, in which the Spanish forces were almost annihilated, practically decided the fate of Bolivia, and on April 1, 1825, General SUCRE completely routed the last Spanish forces in upper Peru (Bolivia), compelling them to abandon the country.

A constitutional congress met at Chuquisaca on August 6, 1825, and, declaring that upper Peru should thereafter be free and independent, adopted the name of Bolivia, in honor of Gen. SIMÓN BOLÍVAR, the liberator. The constitution, which had been drafted by BOLÍVAR, was adopted with some amendments and formally proclaimed on November 19, 1826, General SUCRE being elected President for a term of two years. He was succeeded by General SANTA CRUZ, who, in the year 1835, involved Bolivia in the first war with Chile, which ended in 1838. Bolivia was not, however, to enjoy peace for any length of time, for under the Presidency of General DAZA, in the year 1879, war again broke out with the Republic of Chile, being formally declared by Bolivia on April 5, 1879. A treaty of peace was signed between the two countries on November 24, 1884, whereby Bolivia ceded to Chile the Province of Antofagasta. On March 21, 1905, a further treaty was negotiated between the two countries, whereby Chile agreed to build a railway from the port of Arica to the city of La Paz, the capital of Bolivia, which will become an important outlet for the products of Bolivia.

On November 17, 1903, Bolivia ceded to Brazil the territory of the Acre for a consideration of \$10,000,000. This sum is now being invested by Bolivia in railways and other public works.

Dr. FERNANDO E. GUACHALLA was elected President for the term beginning August 6, 1904, but died before he could assume the duties of the office, and JOSÉ ISMAEL MONTES was designated by Congress to retain the position pending a new election. Dr. ELIODORO VILLAZÓN was elected to assume the office on August 6, 1909.

CONSTITUTION AND GOVERNMENT.

Under the constitution which was promulgated on October 17, 1880, the Republic of Bolivia adopted the democratic representative form of government, the people delegating their power to three distinct and coordinate branches of government—legislative, executive, and judicial. All male citizens over 21 years of age, whose names appear on the electoral registers, who can read and write, and who have a fixed independent income, have the right to vote. A foreigner

after one year's residence may be naturalized as a citizen, and after five years' residence he is eligible to occupy any public post except the Presidency of the Republic.

The Legislature consists of two Houses, the Senate and the Chamber of Deputies, the former consisting of 16 and the latter of 72 members. Senators are elected for six years and Deputies for four years, but both Houses are renewed every two years, the Senate by thirds and the Chamber of Deputies by halves. Both Senators and Deputies are elected by direct vote of the people.

The President and two Vice-Presidents are elected for a term of four years and may not be reelected for the term immediately following the incumbency of their respective offices. The President is assisted by a Ministry, divided into six departments, as follows: Foreign Affairs and Public Worship; Treasury and Industry; Government and Public Works; Justice and Public Instruction; War; Agriculture and Colonization.

The salary of the President is 18,000 bolivianos per annum (\$7,200).

The judiciary consists of one national supreme court composed of seven judges, the superior district courts (one in each Department), the provincial courts, and parochial courts.

INTERIOR GOVERNMENT.

For administrative purposes the country is divided into eight Departments, which are again divided into provinces, the latter into cantons or districts, and these again into municipalities. There are also two divisions of territory in the Republic which have been little explored and are sparsely inhabited. These are governed by officials called National Delegates.

The Departments are governed by prefects, appointed by the President of the Republic for a term of four years, while the provinces are governed by subprefects, also appointed by the President for a term of four years, as are the other authorities. A *consejo municipal* or municipal board is elected by the people for each municipal district or town, to assist the authorities appointed by the President.

The following are the Departments of Bolivia and their respective capitals:

Department of—	Capital.
Beni.....	Trinidad.
Chuquisaca.....	Sucre.
Cochabamba.....	Cochabamba.
La Paz.....	La Paz.
Potosi.....	Potosi.
Oruro.....	Oruro.
Santa Cruz.....	Santa Cruz.
Tarija.....	Tarija.

The largest city and commercial center of Bolivia is La Paz, with a population of 80,000. Other cities with a population of over 20,000 are Sucre, Cochabamba, Santa Cruz, Potosi, and Oruro.

Bolivia has two capitals. Sucre, the original one, is the seat of the Supreme Court, but the President resides in La Paz; Congress has for a number of years held its sessions there, and the foreign diplomats accredited to Bolivia are stationed at that place.

ARMY AND NAVY.

The military forces of the Republic of Bolivia consist of a standing army and a national guard. The standing army is composed of 5 infantry battalions of 4 companies each, 1 infantry battalion of 2 companies, 1 regiment of cavalry, 1 regiment of artillery, with an extra cavalry and an extra artillery regiment in process of formation. The personnel of the permanent army is fixed each year by Congress, and is maintained within the limits prescribed. The law of February 5, 1910, provides for a standing army of 3,153 officers and men.

Compulsory military service is required of all male citizens from their 20th to their 50th year; this system of conscription makes available in time of war a reserve army of 187,178 men.

For military purposes the Republic is divided into 9 districts, viz, La Paz, Beni, Cochabamba, Oruro, Potosi, Santa Cruz, Chuquisaca, Tarija, and Colonia. The strength of the various units which make up the regular army is determined every year by the National Congress. The infantry battalion, however, on an average, consists of 28 commissioned officers, 72 noncommissioned officers, 10 bandsmen, 2 drummers, and 220 privates. The artillery regiment consists of 25 commissioned officers and 39 noncommissioned officers, and 184 privates. The "Abaroa" cavalry regiment consists of 26 commissioned officers, 74 noncommissioned officers, and 160 privates. The commissariat department has 1 colonel, 3 lieutenant-colonels, 3 majors, 5 captains, 2 first lieutenants, 8 lieutenants, 2 sublieutenants, 30 noncommissioned officers, and 90 privates.

The military educational institutions are under the supervision of the general staff, and include a military academy, a military college, and a war college.

Bolivia now has no seacoast, and therefore no longer maintains a navy.

BOLIVIA IN 1909.

During the year 1909 Bolivia made steady advances, the most noticeable improvement being the gain in foreign commerce of almost \$2,000,000. The balance of trade was in favor of the Republic, as the exports far exceeded the imports, and while the imports fell

somewhat short of those of 1908, exports, on the other hand, for 1909 exceeded those for 1908 by \$3,500,000.

In railroad construction noticeable progress has been made. The prospect not only of opening new regions throughout the Republic, but also of affording quicker access to the capital by newer and shorter lines approaches a most satisfactory settlement. As will be seen in the paragraph on the railways, the Arica-Tacna line is in active construction; the wonderful railway around the falls of the Madeira River has begun to carry passengers and freight, although it is not yet finished; and rail communication between La Paz and Buenos Aires is almost an accomplished fact, so that Bolivia can no longer be called isolated.

The notable financial feature of the year was the disposition made of the loan negotiated at the close of 1908. The cash thus obtained was applied for immediate service of the internal debt and to help in the establishment of the gold standard. In addition to this step, bonds were guaranteed to the amount of £3,000,000 sterling, issued by the company constructing the railways, 40 per cent of this capital having been contributed by the Bolivian Government.

As far as concerns agriculture, Bolivia is still in a backward state. Notwithstanding the fertility of the plateaus and the marvelous richness of the eastern slopes, the country is still so sparsely settled and so inaccessible that production barely keeps pace with consumption. The great staples of Bolivia—rubber and cacao—can be produced in far greater abundance than they are to-day, but what is chiefly needed is a larger industrial population.

Bolivia is taking active steps for the encouragement of immigration into its undeveloped territory, yet the country must become better known before the tide of settlers—which now is stopped at Brazil, Argentina, and Chile—flows into this interior tableland of South America. In the promotion of greater immigration President VILLAZÓN considers the distribution of public lands an important factor, and a plan has been outlined whereby the accessible regions of the Beni and Mamoré rivers, of the Bolivian "Chaco," and of the slope of the Paraguay River may be arranged for colonization.

Peace and good will were maintained at home and abroad during the year. An important event, which will make 1909 memorable in the history of the country, was the approval of the Peru-Bolivian protocols by the congresses of the two nations in October of last year, terminating thereby the boundary question between them.

FINANCE.

For the year 1909 financial obligations of the Republic were punctually met, despite the very considerable loss in revenue derived from custom-house receipts.

Until quite recently Bolivia was in effect a country without a debt. It has yet a very small debt and even with the contraction of a new loan for £1,500,000 the debt will still be well within the limit of its resources.

Prior to 1908 the only debt of the Republic was the internal debt. This debt, reduced from time to time from over 5,000,000 bolivianos,^a is now less than 1,000,000 bolivianos. The Morgan debt, contracted in December, 1908, was for £500,000. This loan was issued at 90 per cent net, bears 6 per cent interest, and in addition provides for a 2 per cent sinking fund. The £20,000 payable every six months, necessary to pay interest and amortization, will finally wipe out the obligation in twenty-three and one-half years.

On January 1, 1910, the Bolivian debt stood as follows:

Debt.	Bolivianos.	Pounds sterling.
Morgan loan.....	6,250,000	500,000
Internal bonds in circulation.....	892,225	71,378
Bonds of military compensation.....	188,100	15,048
Acre bonds.....	430,000	34,400
Total.....	7,760,325	620,826

The service of interest and amortization requires £45,735; for the Morgan loan, £40,000; for the internal debt, £2,855; for military bonds, £1,504; and for Acre bonds, £1,606.

On November 10, 1909, the Government applied to the National Congress for authority to issue a new loan of £1,500,000, at a rate not less than that at which the Morgan loan was issued, with interest and amortization not to exceed 7 per cent. One million pounds sterling of the proceeds of this loan is to be used in establishing a bank, £300,000 for drainage works and water supplies, and about £35,000 for railway surveys.

The loan will be guaranteed by the export duties on national products. These duties in 1909 amounted to 2,173,781 bolivianos. Over one-half of the amount, 1,103,419 bolivianos, was derived from the export duty on tin; the remainder, 1,070,362 bolivianos, from the duties on silver, copper, bismuth, gold, and rubber.

With the new loan the whole annual cost of carrying the Bolivian debt will be £150,735, or \$753,675 in United States gold.

COMMERCE.

The total foreign trade for the year 1909 amounted to 93,693,754 bolivianos.^a Of this amount 36,936,941 bolivianos were imports and 56,756,813 bolivianos was exports, showing a balance of trade in favor of the Republic of 29,819,872 bolivianos.

^a The boliviano is the unit of the national currency and can be estimated at about 40 cents United States gold.

The corrected figures for 1908, were: Imports, 40,732,543 bolivianos; exports, 48,238,820 bolivianos; total, 88,971,363 bolivianos; excess of exports over imports, 7,506,277 bolivianos.

Estimating the boliviano at 40 cents United States gold, the following table shows the value of Bolivian trade for the two years:

	1908.	1909.
Imports.....	\$16,293,018	\$14,774,776
Exports.....	19,295,528	22,702,725
Total.....	35,588,546	37,477,502

The trade balance for 1908 was \$3,002,510 and for 1909 was \$7,927,949, showing an increase for 1909 in trade balance of \$4,925,439.

Imports decreased for the year \$1,518,241, but exports increasing to \$3,407,197, more than offset this amount. There was therefore an increase in the total foreign trade for the year of \$1,888,956.

The imports for the years 1908 and 1909 by principal countries of origin were as follows:

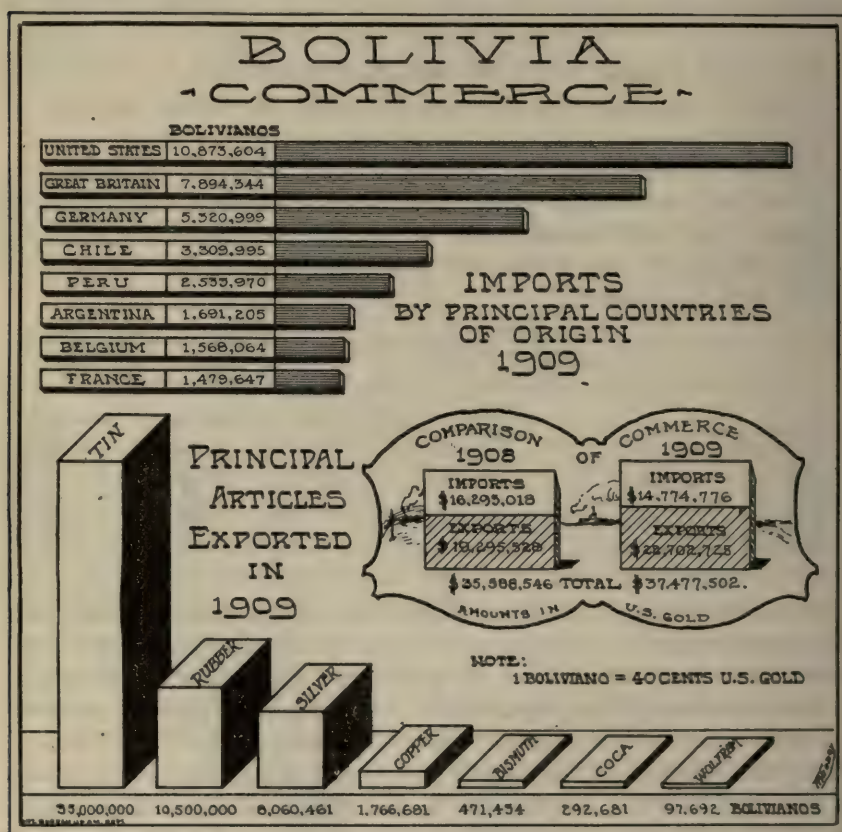
Country.	1908.	1909.
From—	<i>Bolivianos.</i>	<i>Bolivianos.</i>
United States.....	8,164,129	10,873,604
Great Britain.....	6,588,459	7,894,344
Germany.....	10,207,532	5,320,999
Chile.....	3,750,078	3,309,995
Peru.....	1,177,134	2,533,970
Argentina.....	2,386,101	1,691,205
Belgium.....	1,398,976	1,568,064
France.....	2,661,548	1,479,647

From this table it will be seen that the United States has secured the premier place in Bolivian trade, held by Germany in 1908. Germany lost nearly one-half of its trade, and there were declines also in the trade from Chile, Argentina, and France. The greatest increase was in the case of the United States, with increases for Great Britain, Peru, and Belgium. The actual percentage of increase was greatest in the case of Peru, its exports to Bolivia increasing 116 per cent. The United States increased 33 per cent, and Germany decreased 48 per cent.

The value of Bolivian imports from the United States for the year 1909, in American gold, was \$4,349,441. This is according to the reports of the Bolivian statistical office, but according to the reports of the United States Bureau of Statistics the exports to Bolivia for the year amounted to only \$895,838. This discrepancy is explained by the custom in the United States of crediting a large part of the exports to Bolivia, via Mollendo, Antofagasta, Para, Rosario, and other ports for Bolivian entry, situated in neighboring countries, not

to Bolivia, but to the country in which the port is situated—Peru, Chile, Brazil, or Argentina, as the case may be. The Bolivian statistical office more properly credits these imports to the country of origin, and not to the neighboring State.

In like manner much of the exports from Bolivia to the United States are credited in the latter country, not to Bolivia, but to the neighboring State. This is particularly true of rubber. Bolivian rubber, which comes down the Amazon, via Para, to the United States, is in the United States credited practically all to Brazil.



The total exports for the year 1909 were as follows:

Export.	Bolivianos.	United States gold.
Mineral.....	45,620,903	\$18,248,360
Vegetable.....	10,688,102	4,275,241
Animal.....	296,889	118,756
Manufactures.....	85,470	34,188
Miscellaneous.....	65,450	26,180
Total.....	56,756,814	22,702,725

The principal Bolivian export was tin—35,566 metric tons—worth over 35,000,000 bolivianos. Next in order came rubber—over 2,800 tons—worth about 10,500,000 bolivianos. Silver to the amount of 156,507 kilos, worth 8,060,461 bolivianos; copper, 3,084 tons, worth 1,766,681 bolivianos; bismuth, 218,238 kilos, worth 471,434 bolivianos; coca, 125,593 kilos, worth 292,681 bolivianos; and wolfram, 152,600 kilos, worth 97,692 bolivianos, were also exported. In addition, bismuth to the value of nearly 30,000 bolivianos, copper worth about 23,000 bolivianos, and silver valued at 134,000 bolivianos in the unrefined state, were exported. There were small quantities of gold, antimony, lead, zinc, quicksilver, quinine, and coffee exported.

INDUSTRIES.

It is upon her mineral wealth that the Republic mainly depends, and present conditions all point to increased activity in the exploitation of these resources through the constantly increasing foreign demand for the mine products of the country.

The mineral wealth of Bolivia, including nearly all known metals, is widely distributed and very rich and abundant. Great veins of ore containing the precious metals are found in the mountains of the Republic, and while their exploitation is carried on on a considerable scale, yet, due to the lack of labor, capital, and adequate transportation facilities, they are not fully developed and in many instances remain entirely virgin. The copper, tin, and bismuth mines of the Republic are among the richest in the world.

The principal mineral zones now being developed on a large scale are: First, the extensive region which, commencing in the basin of the Inambary River, extends from the western confines of the country to Upper Paraguay, and contains within its boundaries the famous placers of San Juan del Oro, Suches, Tipuani, and a number of others equally important. The second district commences in Lipez and continues southward through Chayanta, Sur Chichas, Mendez, Cinti, and Acero, and terminates in the plains of Santa Cruz. The third zone, which is the richest and most important, extends to Carabaya, Peru, and to the sources of the Madre de Dios, Acre, and Purus rivers.

From 1540 to 1750, a period of two hundred and ten years, the gold mines of Bolivia produced \$2,100,000,000. From 1750 to the beginning of the nineteenth century, the mines and placers situated in the provinces of Larecaja and Caupolicán produced \$14,000,000, gold, and from 1818 to 1868 the output was 150,770 ounces of gold. The product of the other mines and placers of the nation, from the middle of the eighteenth to the latter part of the nineteenth century, is estimated at \$125,000,000. The annual gold production of Bolivia may be calculated at 17,460 troy ounces, which, at \$20 an ounce, gives a value of \$349,200.

The production of india rubber must be counted as one of the most important and certain sources of national wealth. The largest rubber-producing districts are located in the national territory of Colonias, the Departments of Beni and Santa Cruz, and portions of La Paz and Cochabamba. The two last-named districts also cultivate cacao and coffee, while the two former contribute other valuable vegetable products. Upland rice is grown to some extent in the provinces of Azero and Cordillera. A large area of the Republic is well suited to the cultivation of wheat which might be grown in quantities sufficient to meet the needs of the home market, but as yet this branch of agricultural development has been little studied. This cereal was formerly grown to a considerable extent in the District of Cochabamba, but of late years, due to drought and other causes, cultivation has practically ceased. The present Government, impressed with the importance of stimulating agriculture in the Republic, has imported wheat of superior quality from the United States and Argentine Republic for the purpose of supplying a high grade of seed to home growers.

Cattle, sheep, and llamas are abundant; and to foment the livestock industry of the country, on February 1, 1909, the Secretary of Colonization and Agriculture inaugurated the National Veterinary Institute.

RAILWAYS AND INTERIOR WATERWAYS.

There is great railroad development in progress in Bolivia, the Congress having decided to spend the sum of £2,500,000 on this much-needed means of communication. It is to be remembered that, although deprived of her seacoast on the Pacific, Bolivia is in close contact with five of the most advanced Republics. The total amount of new railway mileage projected was stated by Mr. IGNACIO CALDERON, the Bolivian Minister, in an address delivered at Washington, D. C., to be 863 miles. A continuation of the main railway line under construction is needed to establish connection between the Argentine system and to form part of a through route from Lima, in Peru, to Buenos Aires, in Argentina.

The present extent of railways in operation in the Republic is about 804 kilometers (500 miles) of trunk lines. This permits travel from Lake Titicaca through Oruro to the southwestern frontier, and thence 443 kilometers (275 miles) in Chilean territory to Antofagasta, on the Chilean coast. This whole system is popularly known as the Antofagasta and Bolivia Railway, which, starting from Antofagasta, runs through some of the finest Andine scenery in South America. The line, which is only 2 feet 6 inches gauge, is carried to a height of 13,000 feet above sea level, and on one of its branch lines reaches the great altitude of 15,909 feet. The line runs through to Oruro, a

distance of 923 kilometers (574 miles), and the journey can be continued on the Bolivian system to La Paz, a total distance of 1,174 kilometers (730 miles).

Communication is carried on between Mollendo, Peru, on the Pacific, and La Paz, by means of the railroad running from Mollendo to Puno, Peru, on Lake Titicaca, and thence by boat to Guaqui, Bolivia, and by rail from the latter point to La Paz.



MAP SHOWING RAILWAYS IN OPERATION AND UNDER CONSTRUCTION IN BOLIVIA

The line from Arica, Chile, to La Paz, 400 kilometers (250 miles), is now under construction and is reported to be in the following condition: An English firm of contractors has undertaken the work. Near Arica about 2,000 men are employed. The rails have been laid for 73 kilometers (45 miles); as far as kilometer 110 the roadbed is ready and the rails and ties are on the ground. This interval, from kilometer 73 to kilometer 110, is the cogwheel system. There will be

6 tunnels, on all of which work has begun. On the portion in Chile there will be 3 large bridges, which have been ordered in Europe and are already on the way. It is hoped that the entire line will be completed within two years.

About where the cogwheel system begins the altitude is 1,500 meters (4,921 feet), and the climate is very healthy. At kilometer 110 there is an altitude of 3,600 meters (11,811 feet), and the highest point on the line is 4,300 meters (14,108 feet). The greatest grade on the cogwheel system is 6 to 100; on the balance of the line the greatest grade is 3 to 100. It is proposed to make the entire journey—that is, upward from Arica to La Paz—in fourteen hours, while downward, from La Paz to Arica, it will take only twelve hours. The temperature changes on the route are remarkable. The mean temperature in Arica is 30° centigrade, but on the highest point of the line the thermometer falls in winter to -20 centigrade. Plans have been made, therefore, to heat the cars. In addition, compressed oxygen will be carried so as to protect the passengers against mountain sickness.

Branch lines are being constructed from Oruro to Cochabamba, from Oyuni to Tupiza, and from Mulato to Potosi, and new lines have been located from Potosi to Tupiza, from Yacuiba to Santa Cruz, from La Paz to Puerto Pando, and from La Paz to Yungas. Preliminary work on the railway from Brazilian territory to the Beni region, in the northern part of the Republic, has been commenced. The road as projected will be about 495 kilometers (308 miles) in length, and will penetrate a country rich in rubber, cabinet woods, and other forms of natural wealth.

The Bolivian railways are also seeking an outlet to the port of Mollendo, in Peru, around Lake Titicaca, thus making this route an all-rail line to the Peruvian coast. The railway from Oruro to Cochabamba will open up to commerce the fertile valleys of the most thickly settled part of Bolivia, while the line from La Paz to Puerto Pando will assist the development of the territories of the Beni. The line to Potosi, when completed, will furnish much needed railway facilities for the development of the rich mineral resources of this important district.

In the inaugural address of President VILLAZÓN, August 12, 1909, he stated that existing pacts with the Governments of Brazil and Chile, covering the Madeira-Mamore and the Arica-La Paz routes, respectively, are to be carried out vigorously, and work in connection with the Puerto Suarez-La Paz line actively prosecuted.

The different industrial centers of the Republic are at the present time connected with each other by about 2,000 miles of wagon roads. New highways are being constructed, old ones repaired, and fluvial transport facilitated in every possible manner.

A regular line of steamers is maintained on Lake Titicaca, situated at an altitude of 12,900 feet and having an area of 4,000 square miles, being thus not only the highest but also one of the largest lakes on the American continents. Lake Aullagas is connected with Lake Titicaca by means of the Rio Desaguadero. The principal open ports on Lake Titicaca are Escoma, Ancoraimes, Huata, Puerto Perez, Carabuco, and Guaqui or Huaqui.

Bolivia has a network of rivers, which afford excellent means of transportation and communication, the entire length of her navigable streams being about 12,000 miles. Of these, the Paraguay River is navigable for some 1,100 miles for steamers of 8 to 10 feet draft; the Itenes for 1,000 miles, and the Beni 1,000 miles, but for steamers of 6 feet draft only, while the Pilcomayo, Mamore, Madre de Dios, Itonama, Sara, Orton, Baures, Inambary, Paragua, Pirai, Chapare, Abuna, Yacuma, and Desaguadero rivers are all navigable for light-draft vessels for distances varying from 200 to 1,000 miles.

MEANS OF APPROACH.

The principal routes to the country are as follows:

Mollendo route.—From Mollendo to Puno, Peru, by rail, 324 miles, twenty-two hours; from Puno to Guaqui, Bolivia, by steamer, crossing Lake Titicaca, 180 miles, sixteen hours; from Guaqui to La Paz, 59 miles, by rail, three hours; or a total distance of 563 miles covered in three and one-half days.

Arica route.—From Arica, Chile, to La Paz the distance is 337 miles, which is made in seven days, as follows: Arica to Tacna, by rail, 39 miles; Tacna to Viacha, 280 miles, by mule, donkey, or llama; Viacha to La Paz, 18 miles, by rail.

Antofagasta route.—The total distance from the port of Antofagasta to Oruro is 573 miles, which can be covered in two days, by rail. The railway is divided into two sections—the Chilean section, from Antofagasta to Ollague, and the Bolivian section, from Ollague to Oruro, via Uyuni.

Amazon route.—From the port of Para, in Brazil, to Villa Bella and Puerto Acre, a distance of 2,152 miles from the former and 2,533 miles from the latter point, covered in two hundred and sixteen and two hundred and forty-four hours, respectively. The entire trip is made in vessels along the navigable rivers of Brazil and Bolivia.

Argentine route.—From Buenos Aires, by rail, to the Bolivian frontier town of La Quiaca, and thence by mule train to Tupiza and Tarija, a total distance of 1,850 miles. From Buenos Aires the trip can also be made by water, steamers sailing up the Paraguay River to Puerto Pacheco, Puerto Suarez, and La Gaiba, in Bolivia, being 1,553, 1,741, and 1,908 miles, respectively, distant from Buenos Aires. From Puerto Pacheco to La Paz the distance is 1,169 miles, from

Puerto Suarez, 1,125, and from La Gaiba, 1,158 miles, respectively, to the city of La Paz, roads and bridle paths leading from these ports to that city. Another route from Buenos Aires is via the Bermejo River, on which steamers ply between the cities of Esquina Grande, Bolivia, and Rivadavia, Argentina.

The time required to make the trip from New York to Mollendo or Antofagasta is fifty-six days by through steamer, or about twenty days with transshipment at Panama. From San Francisco the trip can be made in forty-three days by steamer.

POSTS AND TELEGRAPHS.

Bolivia has been a member of the International Postal Union since 1885, so that all rules and regulations applying to mails within the union govern mail matter destined to the Republic. Domestic mails are, however, subject to a special tariff. The postal service, which comprises over 200 offices, operated by about 300 employees, handles more than 3,000,000 pieces of mail matter annually. A parcels post and money order convention exists between the United States and Bolivia. Under this convention the following exchanges took place during 1909: Bolivia issued money orders payable in the United States to the amount of \$997 and the United States issued similar orders payable in Bolivia to the amount of \$516.

The Secretary of Government and Public Works in his report to Congress states that extraordinary progress was made during 1909 in linking up the various parts of the country by the building of new telegraph lines and the repair and extension of those already in existence. He further states that while the efficiency of the service has been materially increased, the use by the public of this means of communication has also increased to such an extent as to warrant and call for the construction of additional lines. The construction of lines to connect Uyuni and Tupiza; Lurbay and Inquisivi; and Tomina and Padilla are urgently recommended by the Secretary.

The telegraph system of the Republic comprises 3,979 miles of lines, about 2,390 miles being the property of the Government, and is operated by 124 offices. The wireless service is quite efficient and already includes five land stations, not taking into account several high-power stations which are now being erected.

EDUCATION.

Public instruction is divided between the schools of the nation and of the municipalities. It is free and nominally obligatory. The number of pupils attending the national schools at the end of 1909 was about 14,000, a decided growth since 1904, when these fiscal schools had only 2,847 pupils. The municipal schools reported in the latter year an attendance amounting practically to 48,000 pupils.

The national budget, in 1904, appropriated a fund of 128,000 bolivianos for instruction, and a sum of 263,400 bolivianos was devoted by the departmental funds to the same purpose. The present budget appropriated 1,900,000 bolivianos, a sum which about met the expenses of the service of education. This is an encouraging prospect, and shows the great progress being made along educational lines in the Republic. During the year the programme as outlined by the Congress of 1908 was approved, and the system of primary and secondary instruction was put on a still more scientific basis, so that there was a conformity between the free national schools and a great proportion of those of the municipalities. A normal school was founded in Sucre; a national school of commerce was organized in La Paz; the school of mines in Oruro was remodeled; a museum for teachers was opened with modern methods, and several professors were sent abroad for special study.

Higher education is carried on in schools equipped for the purpose in the various departments of the Republic, and there are faculties under national control in which education is given in law, medicine, theology, and other advanced branches.

A college conducted in English, and known as "The American Institute," was established about four years ago at La Paz. This institution has proved so thorough and efficient, and has given such great satisfaction in the curriculum prescribed, that the Government has decreed that its certificates or diplomas shall admit the persons to whom issued to entrance in the universities of the Republic without the necessity of an examination.





BRAZIL

GEOGRAPHICAL SKETCH.

The Republic of the United States of Brazil is the largest of the South American countries and the second largest of the American Republics, extending over an area of 3,218,130 square miles, or about 400,000 square miles less than the United States of America with Alaska. Not including Alaska the area of the United States is about 200,000 square miles less than Brazil, which thus becomes the largest of the American countries. It is situated between latitude $4^{\circ} 22'$ north and $33^{\circ} 45'$ south and longitude $34^{\circ} 40'$ and $73^{\circ} 15'$ west, being bounded by British, French, and Dutch Guiana, the Republics of Venezuela, Colombia, Ecuador, Peru, Bolivia, Paraguay, Uruguay, the Argentine Republic, and the Atlantic Ocean. Brazil has a population of 20,515,000, equal to 6.4 per square mile, or about one-fifth the population per square mile of the United States of America proper (29.6). A new census will be taken in December, 1910. The language of the country is Portuguese.

Lying entirely within the temperate and tropical zones, the climate of a considerable area is nevertheless modified by the numerous high table-lands and mountain chains, as well as by its vast and extensive hydrographic system. These extensive, fertile plains produce all of the fruits of the Tropics and contain luxuriant and almost impenetrable forests. Coffee, rubber, cacao, and the excellent red dyewood known as "Brazil wood" are the principal articles of export, while cotton, sugar cane, tobacco, herva matte, oranges, and other fruits are also extensively shipped. The forest wealth of Brazil has as yet hardly been tapped, and it is said that no other region in the world contains such a variety of useful and ornamental timber and medicinal plants. A number of precious metals and minerals are found, and it is one of the few countries possessing diamond mines.

HISTORICAL SKETCH.

PEDRO ALVARES CABRAL, a Portuguese navigator, is usually given the credit of having discovered Brazil, when, on April 22, 1500, he landed not far from the present site of the city of Bahia, although several other navigators are said to have touched the Brazilian coast some years before. CABRAL named the country "Terra de Santa Cruz," or "Land of the Holy Cross," and taking possession of it in the name of the King of Portugal proceeded to explore it, but no attempt was made to settle the country until the year 1549, when

THOMAZ DE SOUZA was appointed governor-general. The country had then become known as Brazil from the red dyewood found in its forests, which, at that time, was brought from the East and was commercially known as "Brazil wood," which name it has retained ever since.

The Portuguese Crown divided the country, making grants of land to Portuguese nobles, who were to settle and colonize and who received a number of Indian slaves in addition to the land. With THOMAZ DE SOUZA came the first Jesuits, who soon became important factors in the history of Brazil, and who succeeded in obtaining complete control over the aborigines, gathering them in their missions and colonies. To prevent the Indians being enslaved by the colonists, the Jesuits recommended and fostered the importation of African slaves, thousands of whom were imported from the African coast during the sixteenth and seventeenth centuries.

Between the years 1555 and 1640, the country suffered numerous invasions from the French, Dutch, and British, who sought to gain a foothold on Brazilian soil. In the former year Admiral VILLEGaignon established a colony of French Huguenots on an island in the Bay of Rio de Janeiro, which island now bears his name. He maintained himself here until the year 1560. The most important of these invasions, however, was that of the Dutch, who, in the year 1631, took possession of Pernambuco and gradually extended their power over a considerable portion of Brazil. Prince MAURICE of Nassau was appointed governor of the Dutch possessions in Brazil in 1636, and it was not until the year 1648 that the Dutch were finally forced to evacuate Pernambuco and abandon the country.

In 1640 Brazil became a viceroyalty, with the Marquis DE MONTALVO viceroy and Rio de Janeiro the capital. When, early in the nineteenth century, NAPOLEON invaded Spain and Portugal, the ruler of the latter country, King JOHN, preferred to retire to his American kingdom. He arrived at Rio de Janeiro on March 8, 1808, with all of his family and court and opened the ports of the country to the commerce of the world. The centennial of this opening was celebrated in Rio de Janeiro in 1908 by an exhibition of Brazilian products. King JOHN established schools and in general promoted the interests of his colony. When, in the year 1821, he returned to Portugal, he appointed his eldest son, Dom PEDRO, regent of Brazil. Dom PEDRO was in sympathy with the movement for independence from Portugal, which he encouraged and fostered. On September 7, 1822, he formally proclaimed Brazil to be free and independent, and was, on October 12, 1822, solemnly crowned as Emperor. Under his wise rule and that of his able prime minister, JOSÉ BONIFACIO DE ANDRADA, Brazil prospered and developed her vast natural resources. Dom PEDRO I reigned for nine years, and on April 7, 1831, abdicated

the throne in favor of his infant son, Dom PEDRO II. A regency was appointed, which continued until the year 1840, when the young Emperor became of age and was crowned.

Dom PEDRO II reigned until the year 1889, when the people of Brazil resolved to change their form of government from a monarchy to a republic. This was accomplished without bloodshed on November 15, 1889, when the Emperor abdicated and the Republic was proclaimed.

Marshal DEODORO DA FONSECA was placed at the head of the provisional government. This government remained in control until a constitutional congress, which met at Rio de Janeiro, proclaimed the constitution of the United States of Brazil on the 24th of February, 1891, and elected Marshal DA FONSECA President of the Republic. FONSECA resigned his office on November 23 of the same year in favor of the Vice-President, Marshal FLORIANO PEIXOTO, who was succeeded in 1894 by Dr. PRUDENTE DE MORAES BARROS, in 1896 by Dr. CAMPOS SALLES, and in 1902 by Dr. RODRIGUES ALVES. The present incumbent, Dr. NILO PEÇANHA, succeeded to office on the death of President AFFONSO PENNA, in June, 1909, and Marshal HERMES DA FONSECA, the newly elected Executive, will be inaugurated November 15, 1910.

CONSTITUTION AND GOVERNMENT.

Under the constitution of the Republic of the United States of Brazil the Government is a federal union of states, republican, and representative. Brazil is thus one of the five federated republics of the American Continent, the other four being the United States of America, Mexico, Venezuela, and the Argentine Republic.

The Federal Government is divided into the legislative, executive, and judicial branches, the former consisting of two houses, the Senate and the Chamber of Deputies. The Senate has 63 members, 3 for each State and 3 for the federal district, elected by direct vote of the people for a term of nine years, but the Senate is renewed by thirds every three years. The Chamber of Deputies has 212 members, elected in the same manner as are the Senators and in the proportion of one for every 70,000 inhabitants, for a term of three years.

The executive power is vested in a President, assisted by a Cabinet of seven Secretaries at the head of the following departments: Finance; Justice, Interior, and Public Instruction; War; Marine; Foreign Affairs; Communications and Public Works; and Agriculture. The President and Vice-President are elected for a term of four years by direct vote, and may not be reelected for the term immediately following their own. All male citizens over 21 years of age are entitled to vote. The salary of the President is 120,000 milreis, equivalent to \$37,500 gold, per annum.

The judicial power is vested in the national supreme court and there is a federal judge in each State. The former court is composed of 15 justices, appointed by the President of the Republic with the advice and consent of the Senate, while the federal judges are appointed upon recommendation of the supreme court. All of these judges hold office for life.

INTERIOR GOVERNMENT.

The Union is composed of 20 States, 1 national territory, and the federal district. The States are entirely autonomous in their interior administration, even to the extent of levying their own export duties. The Federal Government is entitled to collect import duties, and also stamp taxes, postal rates, etc. The federal district, which includes the city of Rio de Janeiro, the capital of the Republic, is governed by a prefect, appointed by the President. The prefect is assisted by a municipal council, elected by the people.

Following are the States with their respective capitals:

State of—	Capital.
Alagoas	Maceió.
Amazonas	Manáos.
Bahia	São Salvador.
Ceará	Fortaleza.
Espirito Santo	Victoria.
Goyaz	Goyaz.
Maranhão	Maranhão.
Matto Grosso	Cuyaba.
Minas Geraes	Bello Horizonte.
Pará	Belem.
Parahyba do Norte	Parahyba.
Paraná	Curitiba.
Pernambuco	Recife.
Piahy	Therezina.
Rio Grande do Norte	Natal.
Rio Grande do Sul	Porto Alegre.
Rio de Janeiro	Nitheroy.
Santa Catharina	Florianopolis.
São Paulo	São Paulo.
Sergipe	Aracajú.

Part of the national territory, ordinarily known as the Acre country, was acquired from Bolivia by the treaty of November 17, 1903, and in consideration of the sum of \$10,000,000.

The principal cities, with their estimated population, are: Rio de Janeiro, 1,000,000; São Paulo, 400,000; São Salvador, 350,000; Belem, 200,000; Recife, 150,000; Porto Alegre, 100,000; Ceará, 50,000; Manáos, 50,000. The other cities with a population of more than 20,000 are: Bello Horizonte, Campinas, Corumbá, Curityba, Cuyabá, Florianopolis, Maceió, Ouro Preto, Parahyba, Petropolis, São Luiz, São Paulo, and Victoria.

ARMY AND NAVY.

The Brazilian army has been reorganized in accordance with a law enacted by the Federal Congress toward the end of 1907 and approved by the President on January 4, 1908. The strength and organization of the army as provided by this law is as follows: Fifteen regiments of infantry of 3 battalions of 3 companies each, and 12 battalions of chasseurs. Each battalion possesses a machine-gun section of 3 mitrailleuses. The cavalry is composed of 9 regiments of the line and 3 independent regiments. This arm of the service also has 5 regiments of 2 squadrons each for divisional cavalry, and 12 sections of scouts. The artillery includes 5 regiments of field artillery, each of 3 divisions of 3 batteries; 5 howitzer batteries; 3 divisions of horse artillery of 3 batteries each; and two divisions of mountain guns of 3 batteries each. The heavy artillery is composed of 3 regiments of 6 batteries each, 6 battalions of 2 batteries each, and 6 independent batteries.

The peace strength of the regular army, which varies according to the budget vote, is about 30,000, including 2,626 commissioned officers. But in view of the fact that the new law makes every Brazilian citizen liable to military service from his twenty-first to the completion of his forty-fourth year, the war strength of the Republic probably exceeds 300,000 men.

The Brazilian navy consists of 31 vessels, among which are 3 battle ships, 4 protected cruisers and 5 torpedo gunboats. The 1907 naval programme provided for 3 additional battle ships of the *Dreadnought* type, 3 cruisers, 15 torpedo-boat destroyers, 3 submarines, and 2 auxiliary vessels. With the exception of 1 battle ship, it is expected that all these vessels will have been delivered by August, 1910. The ships' complements will absorb 7,730 men when this programme is carried out.

BRAZIL IN 1909.

The Republic during the year was among those which recovered from the universal commercial depression of 1907. The gain over the preceding year was noticeable in all directions. While in 1908 the foreign trade declined below that of 1907, in 1909 there was a remarkable increase of exports, and the balance of trade, comparing this factor with that of imports, was the greatest that has ever occurred in the history of Brazil. This increase of exports indicates both a larger productive capacity within the country, and a greater facility for carrying these products to the seaboard. A proof of the latter is the increased railway mileage of 591 kilometers (366 miles), and the avowed policy of the Government, more practically applied this year than ever before, to connect with each other the different sections which are now served by railroads.

Politically, Brazil has had a year of peace and progress. At home preparations for the election of the President were made, and the people manifested a hearty interest in all the problems of national government relating thereto. Abroad, international affairs continued on a friendly footing. Of the 23 arbitration conventions signed by Brazil up to the present time, 21 have been concluded since the 1st of January, 1909. The countries covered are Chile, Argentina, the United States of America, Portugal, France, Spain, Mexico, Honduras, Venezuela, Panama, Peru, Ecuador, Costa Rica, Cuba, Great Britain, Bolivia, Nicaragua, Norway, China, Salvador, Switzerland, Haiti, and the Dominican Republic. Treaties of a different character were signed or so arranged that their acceptance is a matter of course. The Republic was also represented abroad in several important international congresses.

In matters of finance, the exchange value of the milreis was maintained, a decided proof of the stability of the nation. The expenditures were greater than the revenues; but while the national debt was increased during the year, much of this increase is explained by the fact that the loan is simply an investment in the national improvements, such as increased dock facilities and new railroads. A presidential decree, bearing date of August 12, 1909, reorganized the financial administration of the Acre Territory, creating two more custom-houses, three fiscal agencies, and five fiscal registries.

Coffee and rubber are naturally the great agricultural products of Brazil, together forming over 82 per cent of the exports, the balance of which is made up by hides, cacao, tobacco, and sugar. This does not, however, explain the full agricultural activity of the Republic. Cotton was exported in a larger amount than in the previous year, but at the same time a steadily increasing proportion of native cotton was consumed in the local mills, which are more and more supplying the wants of the Brazilian people. Thus it will be seen that a diversity of crops is being encouraged. An illustration of this is the increased area devoted to the cultivation of wheat. Brazil has hitherto imported both wheat and flour from the United States of America and the Argentine Republic. Flour mills have already been established, and it is to be hoped that soon they will have a sufficient supply from their own contiguous territory to meet their wants.

Rice, too, is becoming a very important crop in the country, and the Government is devoting a great deal of attention to its cultivation.

Registrations of immigrants landing in Brazilian ports during the year 1909 show a total for the whole country of 85,410. Southern Brazil continues to draw the larger portion of the immigrants, over 92 per cent of the total registrations being in the ports of Santos and Rio de Janeiro. Practically all of those entering at Santos remain in the State of Sao Paulo and a large proportion of those entering at Rio de Janeiro are also destined for that State.

The entrances by ports were as follows: Rio de Janeiro, 42,765; Santos, 36,014; Para, 3,539; Rio Grande do Sul, 1,049; Bahia, 843; Recife (Pernambuco), 610; Sao Francisco (State of Santa Catharina), 338; Paranagua (State of Parana), 114; Florianopolis (State of Santa Catharina), 65; Itajahy (Santa Catharina), 45; Victoria (Espírito Santo), 20; and Sao Luis (Maranhao), 16.

Of the total number entering Brazil, 23,895 immigrants placed themselves at the disposition of the Federal Government, at the expense of which they were housed at five ports of entry, sent to various colonies and installed on small plots of land in the same, mostly in the States of Rio de Janeiro, São Paulo, Minas Geraes, and Paraná. The Federal Government paid transportation charges for 15,879 immigrants who traveled in coastwise vessels, 14,520 traveling by rail, and 12,179 who were transported from railway stations or ports by wagon to the various colonies. All arrivals with families and with bona fide intentions of taking up agricultural pursuits were located on lands in colonies either by the different States or by the Federal Government.

The Brazilian Congress has under consideration certain measures for the promotion of desirable immigration in the Republic, as embodied in a project of law recently submitted.

FINANCE.

According to the message of President PEÇANHA, transmitted to the National Congress on May 3, 1910, the governmental receipts from all sources for the year 1909 were 86,724,376\$450^a gold and 357,001,087\$521 paper.

The total expenditures of the year were 102,589,158\$246 gold and 367,843,599\$317 paper.

The receipts from all sources were as follows:

	Gold.	Paper.
Ordinary receipts.....	86,724,376\$450	290,031,934\$227
Extraordinary receipts, conversion of 140,055\$168 gold into paper.....		48,886,153\$294
Received from issue of new obligations.....		18,083,000\$000
Total.....	86,724,376\$450	357,001,087\$521

The total expenditures were:

	Gold.	Paper.
Ordinary expenditures.....	74,449,102\$088	365,869,984\$317
Extraordinary expenditures, gold converted.....	28,140,056\$158	
Redemption of paper money.....		1,973,615\$000
Total.....	102,589,158\$246	367,843,599\$317

^a The unit of value in Brazil is the milreis (1,000 reis), designated thus: 1\$000. Multiples of this unit are expressed with the same sign. A milreis, gold, at par equals 54.6 cents United States gold; a milreis, paper, although subject to fluctuation, has an average exchange value of 33 cents.

The estimated receipts for the year were 97,909,636\$136 gold and 286,520,500\$ paper.

Estimating the gold milreis at 55 cents and the paper milreis at 33 cents, United States gold, the gross receipts and expenditures for the year would be \$165,508,765.83 and \$177,812,424.81, respectively.

The budget for 1910, as published, estimates ordinary receipts at 84,910,529\$ gold and 299,558,400\$ paper. Extraordinary receipts to be applied to special funds are estimated at 19,463,333\$ gold and 13,560,000\$ paper.

The foreign debt amounts to £78,320,078 and Fr. 240,000,000 and is composed of the following obligations:

Bonds of 1883.....	£3, 267, 000
Bonds of 1888.....	4, 757, 000
Bonds of 1889.....	4 per cent.. 18, 300, 300
Bonds of 1895.....	5 per cent.. 7, 291, 600
Bonds of 1898.....	do.... 8, 613, 718
Bonds of 1901.....	4 per cent.. 14, 202, 560
Bonds of 1905.....	5 per cent.. 8, 370, 300
Bonds of 1908.....	do.... 3, 517, 600
Bonds of 1910.....	4 per cent.. 10, 000, 000
	78, 320, 078
Loan for the construction of the Itapura to Curumba Railway...frances..	100, 000, 000
Loan for the construction of the Goyaz Railway.....do....	100, 000, 000
Loan for the Pernambuco Port Works.....do....	40, 000, 000
	240, 000, 000
Total.....	240, 000, 000

On January 3, 1910, a decree was issued by the President authorizing the Minister of Finance to resume during the present year payments on account of the foreign debt. This anticipates by eighteen months the time specified in the funding loan agreement for the resumption of payments. Under the terms of the agreement entered into with the foreign bondholders in June, 1898, the amortization of the foreign debt was suspended for a period of thirteen years, or until June, 1911.

The total internal debt registered is 546,476,600\$ paper, to which should be added 18,083,000\$ on account of the decree of February 7, 1909, representing railway construction of the Madeira-Mamoré Railway, making a total of 564,559,600\$. From this should be deducted 26,548,000\$, which represents the redemption of certificates on account of the loan of 1897. Making this deduction, the internal debt stands at 538,011,600\$.

On December 31, 1908, there was in circulation paper money to the amount of 634,682,852\$. On the same date in 1909 the amount was 628,452,732\$. This circulation has been further reduced in the year 1910, so that at the end of March it stood at 627,075,261\$500.

A decree issued on December 16, 1909, authorizes the issue of internal bonds bearing 3 per cent interest, payable semiannually, to the amount of 1,805,371\$212 in payment of claims awarded to Bolivia by the Claims Commission created under the terms of the treaty of November 17, 1903.

COMMERCE.

The following statistics are taken from the very complete report of American Vice-Consul-General JOSEPH J. SLECHTA at Rio de Janeiro. They supply the main details of commerce for the year 1909:

The total value of foreign trade for the year amounted to \$488,021,954 United States gold, as compared with \$388,286,447 in 1908 and \$459,316,820 in 1907. The losses suffered by Brazilian trade in 1908 were thus more than regained, thanks to the enormous increase in the country's exports, to which the general increase is mainly due. The value of imports was \$179,690,125 and of exports \$308,331,829. The figures for 1908 were: Imports, \$173,017,849; exports, \$215,226,136. The increase in imports for the year was \$6,672,276, about 4 per cent, and of exports \$93,105,693, about 44 per cent.

The balance of trade in 1909, or the excess of exports over imports, amounted to \$129,641,704; in 1908 it was \$42,019,769, and in 1907, \$66,199,080.

The imports for the two years, by countries of origin, were as follows:

Country.	1908.	1909.	Percent- age.
United Kingdom.....	\$49,845,953	\$48,241,287	a 3.2
Germany.....	25,699,036	28,007,001	b 5.1
United States.....	20,954,352	22,265,534	b 6.2
France.....	15,595,251	18,610,398	b 19.0
Argentina.....	17,531,222	17,922,587	b 2.1
Portugal.....	8,952,346	9,994,615	b 11.7
Belgium.....	8,077,520	7,280,007	a 9.8
Uruguay.....	5,337,724	6,294,057	b 18.0
Italy.....	5,872,446	5,236,557	a 9.0
Austria-Hungary.....	2,770,351	2,365,825	a 15.0
Newfoundland.....	2,470,363	2,008,641	a 19.0
Switzerland.....	1,704,493	1,963,160	b 15.0
Holland.....	940,295	1,748,977	b 86.0
Spain.....	1,590,382	1,522,001	a 4.0
Norway.....	1,510,047	1,504,933	(a)
Canada.....	1,137,612	953,523	a 16.0
Miscellaneous.....	3,030,256	3,771,013	a 19.0
Total.....	173,017,849	179,690,125	b 3.8

a Decrease.

b Increase.

It will be seen that there were increases in the imports from Germany, the United States, France, Argentina, Holland, Portugal, Switzerland, and Uruguay. There were decreases in the trade from the United Kingdom, Austria-Hungary, Belgium, Spain, Italy, Norway, Canada, and Newfoundland. The greatest actual increase was in the imports from France; the greatest percentage of increase was in the imports from Holland. The greatest actual decrease was in the

imports from the United Kingdom, and the greatest percentage of decrease in the imports from Newfoundland.

In the following table giving the imports for 1909, divided into four general classes of merchandise, Class I comprises live animal products; Class II comprises raw materials and products intended for use in the arts and industries; Class III includes all manufactured products; and Class IV all products intended for food purposes.

Country.	Class I.	Class II.	Class III.	Class IV.
Germany.....	\$11,850	\$5,411,558	\$22,076,815	\$506,780
Argentina.....	478,424	211,330	124,034	17,108,801
Austria-Hungary.....		651,154	1,432,120	282,551
Belgium.....	161,621	1,199,815	6,668,171	10,400
United States.....	17,536	3,326,954	15,701,206	3,219,838
France.....	51,128	1,988,624	13,734,860	2,835,786
United Kingdom.....	44,061	17,301,500	29,836,270	1,059,446
Spain.....	5,088	173,176	197,405	1,146,332
Holland.....	19,085	60,996	1,331,866	337,030
Portugal.....	14,275	198,085	975,928	8,806,327
Italy.....	1,140	619,633	1,811,246	2,804,538
Switzerland.....	27,888	47,983	973,759	913,539
Norway.....		11,614	438,922	1,054,397
Uruguay.....	524,002	107,107	177,684	5,485,264
Canada.....		80,047	59,050	814,426
Miscellaneous.....	196,979	1,184,016	734,447	3,664,208
Total.....	1,393,077	32,573,602	95,673,783	50,049,663

For the year 1908 the totals in the classes were: Class I, \$863,868; Class II, \$33,062,963; Class III, \$91,054,980; and Class IV, \$48,036,027.

The imports in classes for the two years, particularized by articles, were as follows:

CLASS I.—*Animals, birds, etc.*

	1908.	1909.
Live animal products.....	\$863,868	\$1,393,077

CLASS II.—*Raw materials, etc.*

	1908.	1909.
Cotton, yarn, thread.....	\$2,389,595	\$2,553,458
Lead.....	596,911	597,092
Copper.....	586,404	580,298
Iron and steel.....	1,486,477	1,603,590
Jute and hemp.....	2,464,927	2,258,228
Wool.....	956,611	879,454
Flax.....	174,234	206,716
Lumber.....	1,835,078	1,991,684
Materials for perfumes and paints.....	1,935,791	2,067,787
Linseed oil.....	446,827	461,371
Turpentine.....	154,309	121,315
Gold, silver, and platinum.....	741,098	581,220
Straw fiber.....	120,024	156,226
Plants and seeds.....	1,123,723	1,191,908
Stone, earth, and minerals.....	14,159,963	13,219,408
Hides and skins.....	1,995,479	2,565,586
Vegetable gums, etc.....	1,492,602	1,348,402
Under lumber was imported: Pine.....	1,543,177	1,563,017
Under stone, earth, etc., were imported:		
Asphalt.....	151,715	107,230
Coal.....	9,664,560	8,689,482
Under vegetable gums, etc., were imported:		
Oils (illuminating).....	506,824	374,272
Pitch tar.....	770,574	753,664

CLASS III.—*Manufactured goods.*

	1908.	1909.
Cotton manufactures.....	\$13,468,676	\$12,479,495
Arms and munitions.....	1,468,802	5,764,458
Carriages and vehicles.....	2,619,069	2,767,600
Lead, zinc, and manufactures.....	265,670	231,076
Copper and manufactures.....	1,684,690	1,773,293
Iron and steel manufactures.....	18,963,633	19,387,837
Musical instruments.....	759,302	785,647
Surgical and dental instruments.....	359,447	379,176
Physicians' and scientific instruments.....	353,196	307,746
Manufactures of wool.....	2,907,073	2,472,616
Manufactures of flax.....	1,128,839	1,206,064
Manufactures of jute and hemp.....	315,458	195,482
Manufactures of porcelain.....	2,614,439	2,532,266
Machinery, etc.....	16,539,605	17,132,316
Manufactures of wood.....	1,177,475	934,268
Manufactures of ivory and pearl.....	110,510	91,103
Manufactures of gold, silver, and platinum.....	337,386	350,220
Manufactures of fibers.....	198,841	366,862
Manufactures of paper.....	4,451,961	3,953,983
Manufactures of stone, earth, etc.....	1,249,943	1,073,360
Manufactures of hides and leather.....	733,540	744,751
Perfumes, inks, paints, etc.....	1,307,502	1,643,488
Chemical products and pharmaceutical supplies.....	3,745,947	4,256,058
Manufactures of silk.....	1,187,721	870,120
Miscellaneous manufactures.....	13,021,355	13,725,622
Under cotton manufactures were imported:		
White cloth.....	1,442,715	1,243,605
Unbleached.....	119,491	42,745
Prints.....	1,531,649	1,372,528
Dyed goods.....	2,654,254	2,426,802
Not specified.....	4,035,873	3,583,419
Manufactures not specified.....	1,941,465	1,820,925
Under carriages and vehicles were imported:		
Automobiles.....	551,682	539,193
Railroad and street cars.....	1,771,375	1,974,306
Under iron and steel manufactures were imported:		
Wire.....	1,677,926	1,774,776
Cutlery.....	666,742	721,292
Axles, etc.....	1,217,077	885,076
Building hardware.....	2,936,415	2,527,855
Rails, etc.....	4,724,061	7,077,896
Under musical instruments were imported: Pianos.....	351,725	359,460
Under manufactures of jute and hemp were imported: Rope.....	143,232	41,112
Under machinery, etc., were imported:		
Electrical.....	3,197,438	2,356,846
Miscellaneous hardware.....	1,997,040	1,692,604
Scales.....	85,777	75,813
Pumps.....	203,234	181,985
Locomotives.....	1,758,415	2,016,490
Motors, etc.....	808,126	743,875
Sewing machines.....	1,019,838	933,184
Typewriters.....	130,613	195,101
Industrial machinery.....	2,662,135	3,117,823
Agricultural machinery.....	537,373	404,151
Under manufactures of wood were imported: Furniture.....	631,244	374,994
Under manufactures of hides and leather were imported: Shoes, etc.....	251,747	238,934
Under perfumes, paints, etc., were imported: Prepared paints.....	326,355	407,160
Under miscellaneous manufactures were imported:		
Clocks.....	141,273	114,550
Watches.....	225,632	241,514
Gasoline.....	168,523	172,302
Kerosene.....	3,605,095	3,681,209
Manufactures of rubber.....	433,570	532,931
Lubricating oils.....	747,770	816,806

CLASS IV.—*Food products.*

	1908.	1909.
Codfish.....	\$4,541,354	\$4,079,400
Lard.....	512,410	197,032
Flour.....	9,041,481	9,269,847
Condensed milk.....	753,858	952,857
Bacon.....	227,330	245,989
Forage, etc.....	570,324	565,611

CLASS V.—*Money and specie (not included in above totals).*

	1908.	1909.
Total.....	\$690,956	\$42,706,221

The imports for the year 1909, by ports of entry and by class, were as follows:

Port.	Class I.	Class II.	Class III.	Class IV.	Total.
Rio de Janeiro.....	\$262,741	\$15,037,492	\$37,516,478	\$14,808,480	\$67,625,191
Santos.....	217,756	6,706,930	15,988,100	11,680,178	34,592,964
Para.....	27,457	1,966,707	7,511,823	5,358,286	14,864,273
Bahia.....	2,413	1,499,300	4,282,025	2,971,100	8,754,838
Rio Grande do Sul.....	11,253	1,033,929	3,856,515	1,070,844	6,022,541
Recife.....	4,199	2,026,944	5,838,724	4,892,752	12,762,619
Manaos.....	1,299	1,066,482	5,063,147	3,039,885	9,170,833
Porto Alegre.....	11,010	824,342	3,875,255	1,340,703	6,051,310
Maranhao.....	2,232	419,387	1,249,195	414,017	2,084,831
Paranagua.....	1,354	289,822	1,278,660	358,592	1,928,428
Fortaleza.....	3,020	267,669	1,275,524	514,102	2,060,315
Maceio.....		230,492	903,155	856,886	1,990,533
Corumba.....	550	208,053	1,334,785	454,235	1,997,623
Florianapolis.....	1,610	184,607	620,422	303,950	1,110,589
Pelotas.....	3,635	181,321	751,282	414,246	1,350,484
San Francisco.....		61,881	236,286	115,855	414,022
Cabedello.....	286	92,180	458,395	265,080	815,941
Victoria.....		47,564	431,560	139,506	618,630
Natal.....	40	42,211	467,880	94,030	604,161
Cuyaba.....		7,746	962,595	14,616	983,057
Total of 16 ports.....	550,355	32,245,059	93,901,806	49,107,347	175,805,069
Miscellaneous ports.....	842,222	328,543	1,771,977	942,316	3,885,058
Total.....	1,393,077	32,573,602	95,673,783	50,049,663	179,690,125

The exports for the two years, by countries, were as follows:

Country.	1908.	1909.	Percent- age.
United States.....	\$86,325,546	\$123,817,298	<i>a</i> 43.5
United Kingdom.....	31,793,691	49,832,180	<i>a</i> 59
Germany.....	33,954,673	48,130,450	<i>a</i> 41.8
France.....	16,459,949	26,514,120	<i>a</i> 61.3
Holland.....	9,901,775	14,390,172	<i>a</i> 45.5
Austria-Hungary.....	7,711,370	10,261,295	<i>a</i> 33
Argentina.....	9,043,998	10,229,459	<i>a</i> 13
Belgium.....	4,744,696	6,492,082	<i>a</i> 37
Uruguay.....	3,927,402	5,203,043	<i>a</i> 32.5
Italy.....	2,462,148	2,651,878	<i>a</i> 7.3
Spain.....	1,071,681	1,062,270	<i>b</i> 8
Portugal.....	947,526	905,968	<i>b</i> 4.4
Other countries.....	6,891,681	8,841,614	<i>a</i> 28
Total.....	215,266,136	308,331,829	<i>a</i> 43.3

a Increase.

b Decrease.

It will be seen that there were increases in exports to all the countries named, except Spain and Portugal. The largest actual increase was in exports to the United States. The largest percentage of increase was in exports to France.

The following table gives the amount and value of the principal articles of export for the year 1909:

Article.	Quantity.	Value.
Coffee.....	16,880,696 bags.....	\$161,922,682
Rubber.....	39,027 metric tons.....	91,578,388
Hides.....	35,784 metric tons.....	8,812,660
Yerba-maté.....	58,017 metric tons.....	8,025,333
Cacao.....	33,818 metric tons.....	7,739,870
Tobacco.....	29,782 metric tons.....	6,443,681
Skins.....	3,897 metric tons.....	4,709,492
Sugar.....	68,483 metric tons.....	3,247,504
Cotton.....	9,969 metric tons.....	2,861,662
Bar gold.....	4,323 kilos.....	2,252,898
Manganese.....	241,000 metric tons.....	1,730,311
Chestnuts.....	.....	1,493,712
Carnauba wax.....	3,042 metric tons.....	1,230,638
Bran.....	38,158 metric tons.....	1,210,572
Cotton seed.....	33,615 metric tons.....	711,401
Monazite sand.....	6,462 metric tons.....	708,092
Precious stones.....	.....	288,212
Total of 17 articles.....	.....	304,967,108
Miscellaneous articles.....	.....	3,364,721
Total exports.....	.....	308,331,829

The following table shows the amount and value of each of the exported articles given in the above table by port of departure and by country of destination:

Port of origin.	Metric tons.	Value.	Country of destination.	Metric tons.	Value.
HIDES.					
Manaos.....	274	\$45,593	Germany.....	13,347	\$3,516,293
Para.....	768	120,883	Argentina.....	47	16,903
Fortaleza.....	1,121	355,098	Austria-Hungary.....	105	33,813
Cabedello.....	285	107,352	Belgium.....	583	182,137
Pernambuco.....	220	69,105	United States.....	1,100	386,936
Bahia.....	3,863	952,123	France.....	7,792	1,560,035
Victoria.....	13	3,517	Great Britain.....	513	157,948
Rio de Janeiro.....	6,376	1,083,217	Italy.....	382	131,587
Santos.....	461	80,967	Portugal.....	953	324,579
Rio Grande do Sul.....	10,200	2,318,713	Uruguay.....	1,051	350,070
Porto Alegre.....	3,123	996,546	Other countries.....	9,911	2,153,459
Miscellaneous.....	9,580	2,679,546			
Total.....	35,784	8,812,660		35,784	8,812,660
SKINS.					
Para.....	63	40,310	Germany.....	102	132,266
Fortaleza.....	1,260	1,587,540	Belgium.....	103	145,881
Cabedello.....	390	522,193	United States.....	2,681	3,216,006
Recife.....	504	721,207	France.....	523	679,543
Bahia.....	939	1,048,305	Great Britain.....	446	513,225
Miscellaneous.....	741	789,937	Other countries.....	42	.....
Total.....	3,897	4,709,492		3,897	4,709,492
MANGANESE.					
Bahia.....	20,000	143,492	Germany.....	10,000	68,347
Rio de Janeiro.....	221,000	1,586,819	Belgium.....	53,000	380,841
			United States.....	36,000	258,159
			France.....	32,000	230,590
			Great Britain.....	69,000	496,354
			Holland.....	9,000	66,943
			Other countries.....	32,000	229,077
Total.....	241,000	1,730,311		241,000	1,730,311
GOLD IN BARS (KILOS).					
Rio de Janeiro.....	4,319	2,250,717	Germany.....	4	2,102
Miscellaneous.....	4	2,181	France.....	38	19,982
			United Kingdom.....	4,281	2,230,814
Total.....	4,323	2,252,898		4,323	2,252,898

Port of origin.	Metric tons.	Value.	Country of destination.	Metric tons.	Value.
MONAZITE SAND.					
Bahia.....	1,999	\$212,957	Germany.....	5,542	\$606,200
Victoria.....	698	77,667	Belgium.....	1	136
Rio de Janeiro.....	3,705	417,468	United States.....	501	55,790
			France.....	398	43,743
Total.....	6,462	708,092		6,462	708,092
PRECIOUS STONES, ETC.					
Bahia.....		221,896	Germany.....		36,434
Rio de Janeiro.....		66,316	Belgium.....		303
			United States.....		37,529
			France.....		101,216
			United Kingdom.....		112,730
Total.....		288,212			288,212
COTTON.					
Para.....	1	425	Germany.....	13	3,245
Fortaleza.....	259	72,433	Argentina.....	17	2,277
Cabedello.....	2,586	714,399	Belgium.....	242	64,033
Recife.....	4,685	1,374,333	France.....	74	20,876
Rio de Janeiro.....	17	2,277	United Kingdom.....	8,283	2,387,069
Santos.....	7	1,800	Spain.....	41	14,077
Miscellaneous.....	2,414	695,995	Italy.....	7	1,800
			Portugal.....	1,292	367,285
Total.....	9,969	2,861,662		9,969	2,861,662
SUGAR.					
Cabedello.....	593	20,246	Argentina.....	10,918	614,454
Recife.....	48,295	2,289,456	United States.....	6,022	331,628
Bahia.....	2,727	129,974	United Kingdom.....	51,026	2,259,824
Rio de Janeiro.....	1,882	131,031	Uruguay.....	346	31,012
Miscellaneous.....	15,986	676,796	Other countries.....	171	610,586
Total.....	68,483	3,247,504		68,483	3,247,504
RUBBER.					
Manaos.....	17,181	44,857,102	Germany.....	994	2,032,435
Para.....	17,244	38,881,468	Argentina.....	2	2,510
Fortaleza.....	1,036	1,559,637	Belgium.....	103	245,284
Pernambuco.....	79	55,383	United States.....	20,239	48,492,072
Bahia.....	1,722	2,673,022	France.....	2,482	5,444,029
Rio de Janeiro.....	102	133,889	United Kingdom.....	14,460	33,221,102
Santos.....	41	51,618	Portugal.....		643
Miscellaneous.....	1,622	3,366,269	Uruguay.....	747	2,140,313
Total.....	39,027	91,578,388		39,027	91,578,388
CACAO.					
Manaos.....	197	47,839	Germany.....	8,346	1,899,200
Para.....	3,783	859,438	Argentina.....	714	170,804
Bahia.....	28,864	6,006,371	Austria-Hungary.....	549	125,593
Miscellaneous.....	974	226,222	Belgium.....	225	51,939
			United States.....	7,682	1,764,865
			France.....	8,650	1,977,367
			Great Britain.....	5,666	1,302,586
			Holland.....	1,546	357,222
			Italy.....	275	62,265
			Other countries.....	165	38,029
Total.....	33,818	7,739,870		33,818	7,739,870
COFFEE (BAGS).					
Bahia.....	148,323	1,286,156	Germany.....	3,286,547	31,506,581
Victoria.....	299,495	2,651,727	Argentina.....	270,117	2,610,775
Rio de Janeiro.....	2,967,843	27,650,578	Austria-Hungary.....	1,056,578	10,087,662
Santos.....	13,453,104	130,213,761	Belgium.....	535,083	5,107,345
Miscellaneous.....	11,931	120,460	United States.....	7,053,985	67,766,720
			France.....	1,673,738	16,026,001
			Great Britain.....	540,161	5,258,844
			Spain.....	108,122	1,048,022
			Holland.....	1,443,940	13,947,426
			Italy.....	249,826	2,385,024
			Portugal.....	4,453	43,236
			Uruguay.....	39,531	374,473
			Other countries.....	618,615	5,760,573
Total.....	16,880,696	161,922,682		16,880,696	161,922,682

Port of origin.	Metric tons.	Value.	Country of destination.	Metric tons.	Value.
CARNAUBA WAX.					
Fortaleza.....	994	\$370,490	Germany.....	1,729	\$698,535
Recife.....	1,162	501,351	Argentina.....	1	700
Bahia.....	133	56,113	United States.....	783	317,739
Miscellaneous.....	753	302,684	Great Britain.....	401	162,754
			France.....	65	24,366
			Portugal.....	63	26,406
			Uruguay.....		135
Total.....	3,042	1,230,638		3,042	1,230,638
COTTON SEED.					
Cabello.....	12,300	261,674	France.....	1,487	31,584
Recife.....	13,819	296,934	Great Britain.....	32,102	679,257
Miscellaneous.....	7,696	152,793	Other countries.....	26	500
Total.....	33,615	711,401		33,615	711,401
CHESTNUTS.					
Manaos.....		782,094	Germany.....		151,529
Para.....		403,530	United States.....		860,245
Miscellaneous.....		308,088	Great Britain.....		481,806
			Other countries.....		132
Total.....		1,493,712			1,493,712
BRAN.					
Recife.....	3,091	105,572	Germany.....	33,018	1,042,873
Rio de Janeiro.....	20,742	652,477	United Kingdom.....	4,915	160,616
Santos.....	13,203	414,241	Other countries.....	225	7,083
Miscellaneous.....	1,122	38,282			
Total.....	38,158	1,210,572		38,158	1,210,572
TOBACCO.					
Bahia.....	27,458	6,129,239	Germany.....	27,138	5,904,946
Porto Alegre.....	1,894	229,951	Argentina.....	1,963	396,305
Miscellaneous.....	430	84,491	Uruguay.....	507	99,927
			Other countries.....	174	42,503
Total.....	29,782	6,443,681		29,782	6,443,681
YERBA-MATE.					
Rio de Janeiro.....	9	1,350	Germany.....	14	1,923
Santos.....	13	1,899	Argentina.....	43,161	5,802,611
Rio Grande do Sul.....	25	2,446	Uruguay.....	11,877	1,708,798
Porto Alegre.....	8,972	759,007	Other countries.....	2,965	512,001
Miscellaneous.....	48,998	7,260,631			
Total.....	58,017	8,025,333		58,017	8,025,333

The following table gives a summary of the export trade for the year 1909 by ports of departure:

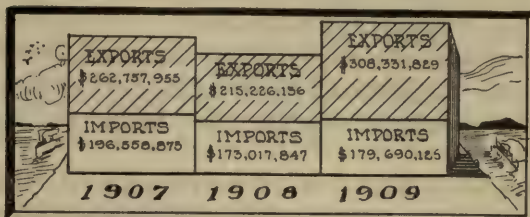
Santos.....	\$130,943,928
Manaos.....	45,750,081
Para.....	40,431,527
Rio de Janeiro.....	34,630,104
Bahia.....	19,842,983
Recife (Pernambuco).....	5,712,092
Fortaleza.....	3,976,537
Victoria.....	2,755,137
Rio Grande do Sul.....	2,621,379
Corumba.....	2,552,441
Porto Alegre.....	2,230,956
Pelotas.....	1,991,343
Maceio.....	1,522,915

BRAZIL

NOTE:-
ALL AMOUNTS
IN U.S. GOLD.

UNITED KINGDOM	46,241,287
GERMANY	49,046,952
UNITED STATES	26,007,001
FRANCE	25,609,036
ARGENTINA	22,265,534
PORTUGAL	20,954,352
BELGIUM	18,610,396
URUGUAY	15,595,251
ITALY	17,922,587
AUSTRIA-HUNGARY	17,531,222
NEW-FOUNDLAND	9,994,616
SWITZ-ERLAND	8,932,346
HOLLAND	7,280,007
SPAIN	8,077,520
NORWAY	6,294,057
CANADA	5,357,724
OTHER COUNTRIES	5,236,557
	5,072,446
	2,365,825
	2,770,351
	2,008,641
	2,470,363
	1,963,169
	1,704,493
	1,748,277
	940,295
	1,522,001
	1,590,362
	1,504,933
	1,510,047
	953,523
	1,137,612
	3,771,013
	3,050,256

IMPORTS BY COUNTRIES OF ORIGIN



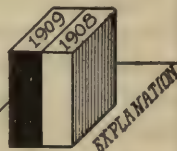
1909 1908 1909
EXPLANATION

UNITED STATES	\$123,817,298
UNITED KINGDOM	86,355,546
GERMANY	49,652,180
FRANCE	31,795,691
HOLLAND	46,150,450
AUSTRIA HUNGARY	33,954,973
ARGENTINA	26,514,120
BELGIUM	16,459,949
URUGUAY	14,290,172
ITALY	9,901,775
SPAIN	10,281,293
PORTUGAL	7,711,370
OTHER COUNTRIES	10,229,459
	9,043,993
	6,492,082
	4,744,696
	3,203,043
	3,227,402
	2,651,878
	2,462,148
	1,062,270
	1,071,681
	905,968
	947,526
	8,241,614
	6,091,681

EXPORTS BY COUNTRIES OF DESTINATION



PRINCIPAL ARTICLES OF EXPORT FOR THE YEARS 1908 AND 1909



COFFEE RUBBER HIDES CACAO TOBACCO SKINS SUGAR COTTON ARTICLES

Maranhao.....	\$490,504
Florianapolis.....	283,729
All others.....	12,596,173
Total exports.....	308,331,829

INDUSTRIES.

Brazil has rich mineral deposits which, with the extension of the railroad systems of the country, thus affording an outlet to the manufacturing cities and to the seaboard, will no doubt in the near future be much better exploited than they have been in the past. Gold, diamonds, manganese, and monazite are found in paying quantities and are already among the most stable and substantial exports of the country.

The State of Bahia, one of the richest of the Brazilian States in mineral deposits, is desirous of stimulating the promotion of mining. In the promulgation of regulations for this industry the state government makes liberal provision for the rights of landowners, but at the same time provides the necessary impetus for the exploitation of the mineral resources of the property either by the holders or possible lessees.

The coal formations of the country, the existence of which has been known for over half a century, have been thoroughly studied by geologists of repute from the United States, and it has been proved that a carboniferous vein extends from the south of the State of São Paulo to Rio Grande do Sul. The beds dip to the south and the coal seams increase in thickness in that direction. Tried on the railroads, Brazilian coal has proved to be of good quality, an analysis made in the United States giving the following results: Moisture, 2.62; volatile matter, 29.54; ash, 29.22; sulphur, 11.08; phosphorus, 0.012; fixed carbon, 38.62. The analysis made in 1906 in the Escola de Minas gave hygrometric moisture, 7.7; volatile matter, 32; ash, 8.5; equivalent carbon, 51.8; and calorific power, 5,400 calories.

A very rich deposit of surface gold was recently discovered at a point called Olho de Agua, 8 kilometers from the city of Montes Claros, in the northern part of the State of Minas, Brazil. Gold to the value of about \$150,000 has been secured in flakes varying from 100 to 720 grams each. One of the latter, owing to its unusual weight, was exhibited in the National Exposition in Rio Janeiro. Discoveries were also reported of bismuth in Campo Alegre and diamonds in Abbadia dos Dourados. A clear white stone weighing $4\frac{1}{2}$ carats was found, as well as a ruby weighing one-half carat.

The most important placer is the basin of gold-bearing gravel below Guanay, reached by descending the Beni or Kaka River. This placer has been exploited to a considerable extent. The Incahuara basin, on the Beni River, and the gold-bearing gravel found on the banks

of the Inambari River are also rich deposits, the gold being obtained from a black sand. Samples assayed ran over 80 ounces to the ton.

Work has commenced on the mercury mine recently discovered in the State of Minas Geraes. Brazil is one of the few countries possessing mines of this useful metal.

Agriculture still holds first place among the industries of the country. Coffee, the principal crop, is grown in the southern States of Minas Geraes, Rio de Janeiro, Espirito Santo, and São Paulo, which furnish more than four-fifths of the world's production. Other crops include cacao, sugar cane, tobacco, hay, cereals, beans, roots, and tubers of all kinds, cotton of the best quality, matte, fruits, and vegetables. Rice culture is now reaching an extraordinary stage of development, the importation of this article, which a few years ago amounted to more than 2,000,000 bags, having now stopped almost entirely. Market vegetables and fruits of unsurpassed flavor in great abundance may be counted among the exports of the future. Cabinet and dye woods abound in the Amazon forests, while large areas of rubber trees furnish a product that is shipped in enormous quantities to all parts of the world.

Since 1902, no coffee trees have been planted in São Paulo, and as it takes from four to six years for coffee to bear, the only elements of production are the trees in existence, almost all of which are in bearing at present. The last trees planted will be at their best and full bearing in the course of the current quadrennium, while the influence of replanting exhausted areas, as well as of the intensive cultivation lately followed, will also reach its climax during this period. Under such circumstances it seems reasonable to suppose that the average production during the years 1909-1912 will be the same as for the previous quadrennium, plus 5 per cent increase from freshly bearing trees, or in all about 10,000,000 bags per annum.

Twenty years ago the world's consumption of coffee was between 9,000,000 and 10,000,000 bags, and ten years later it had risen to 13,000,000. At this rate, at the close of 1912 current consumption should reach 19,000,000 bags, especially if the official propaganda should be as effective as is expected.

Recognizing the preeminence of the rubber industry the Government has decided to inaugurate local industrial application of the raw material, and in support of this purpose a bill was introduced into the National Congress exempting from import duties for a term of three years all material and machinery required for the establishment of rubber factories.

Sugar growing is one of the oldest industries of the country. It is carried on in three distinct zones, of which the northern, with the State of Pernambuco as its center, is the most important. This State produces about half of the total yield and has 47 central sugar mills,

with 1,500 plantations, and a total production of 156,000 tons. The estimated output for 1909-10 is placed at 240,000 tons. By a decree of March 27, 1908, the duty on sugar of all kinds originating in countries which do not pay any bounty on that article was increased by the Government from \$0.077 to \$0.154 per 2.2 pounds.

The Brussels Sugar Convention has added the Republic to the list of countries considered as according bounties on production or exportation of sugar.

Tobacco, which is one of the principal exports of Brazil, has since 1902 suffered a considerable decline in the quantity exported, although more tobacco is raised in the Republic than ever before. Most of the Brazilian tobacco exported goes to Germany, Austria, and Italy, and a small quantity to the Argentine Republic and Uruguay. At present Bahia is the principal tobacco-producing State of Brazil, the crop of that State in 1908-9 having amounted to 500,000 bales of 7 kilos each, as compared with 200,000 bales in 1907-8.

The production of rice in the Republic, which, more or less, has been taking the place of the large imports during the last half decade, has been made possible by a protective tariff. The record of decreased imports is measured almost exactly by the record of the increased customs duties on the grain. While importations of rice in 1907 were about one-fifth of those six years ago, the importations of 1908 amounted to only one-ninth of the average for the six previous years.

In a general way, so far as distribution is concerned, this change represents the development of rice production in Brazil. Practically the whole of the recent revival of rice growing in the country has been in the States of Rio de Janeiro, Minas Geraes, São Paulo, Santa Catharina, Paraná, and Rio Grande do Sul, the imports of rice in the northern ports, except where they are affected by the very high price of the food to consumers, continuing at about the old figures.

There are two distinct lines of rice production in the country at the present time. One is that of the modern culture of the grain at two points in São Paulo and at one or two places in Rio de Janeiro and Minas, more or less under the direction of an expert from the United States; and the other is the old-time native system of production, which embraces practically all of the real rice production of the country. The methods of the former are simply those of the best type in the United States, in Louisiana and Texas.

An earnest effort is being made by the Government to stimulate the production of silk, and the national budget contains provisions for bounties, not only to producers of cocoons, but to persons establishing silk factories under prescribed conditions. The irregular cultivation of the silkworm, which has continued in Brazil for many years, has given promise that under favorable conditions the industry

in the country might be profitable. Several of the state governments, especially those of Minas Geraes and São Paulo, have given notable support to the movement. The Government pays 1 milreis (about 30 cents) per kilogram (2.2 pounds) to the producers of cocoons who present their claims therefor, also premiums of \$600, \$300, and \$150 for fields of not less than 2,000 trees of mulberry which best meet requirements. A premium of \$15,000 was also offered to the first silk weaving factories of certain grade using Brazilian silk exclusively in their manufacture.

A legislative decree dated December 31, 1908, authorized the President to grant an annual bounty of 15 contos (\$4,500) to agricultural syndicates which shall engage in the cultivation of wheat in the Republic. This bounty is offered for a period of five years, and will be paid in quarterly installments. To enjoy the advantages of this law, the company must be organized under the laws of Brazil, and must cultivate an area of over 200 hectares under the direction of an expert of proved ability. A bounty of equal amount is offered for the erection of flour mills having a capacity of not less than 11,356 bushels of wheat. To five or more companies which shall jointly establish experiment stations and laboratories for the study of entomology and agricultural chemistry a bounty of 20 contos (\$6,000) is to be granted. To stimulate the trade in mandioca flour, a state government is offering prizes of \$300, \$180, and \$120 for the best 5 tons or more of this article delivered in the European market within a specified time.

The total area under cacao cultivation is estimated at about 40,000 acres, with 10,000,000 trees in bearing. From the State of Bahia comes fully 80 per cent of the cacao produced in Brazil, whose exportable surplus in 1908 amounted to nearly 70,000,000 pounds, or over one-fifth of the world's supply. For 1909 it was estimated that this total would be exceeded by at least 2,000,000 pounds. The average yield of each tree in its maturity is about 6 pounds of dried beans each season under present conditions. One estate reports a yield of 30 pounds per tree under favorable conditions. The increase in output has been very marked for the past three years, and the area of land suitable for cacao growing in the State of Bahia is practically unlimited.

The production and export of bananas has increased enormously in the last few years. Santos is the center of the banana industry. In 1905, it was estimated that there were 917,800 banana trees in bearing in this district, while the production of this section in 1907 was estimated at 1,601,600 bunches, worth 1,802,240 *milreis* (\$540,672). The exports from the port of Santos increased from 231,297 bunches, valued at 184,471 *milreis* (\$55,341), in 1906, to 339,505 bunches, worth 372,610 *milreis* (\$111,783), in 1907. The exports go chiefly to the Argentine Republic and Uruguay.

A Bureau of Agricultural Inspection was created by a presidential decree of September 16, 1909. This Bureau will make a special study of the agricultural industry in Brazil, its present condition and the causes retarding its development, and will make recommendations for the improvement of this branch of industry. An expenditure of \$300,000 has been authorized by the Executive to apply dry-farming methods in the northern States.

The Government is giving special attention to the development of the pastoral industry. A presidential decree of October 21, 1909, authorized the creation of a Bureau of Animal Industry under the Department of Agriculture, Industry and Commerce, which will have charge of all matters relating to the live-stock industry.

The number of cattle in the Republic is estimated at 25,000,000 head, distributed as follows: Rio Grande do Sul, 5,000,000; Matto Grosso, 3,000,000; Minas Geraes, 2,500,000; Ceará, 1,500,000; Parahyba, 800,000; São Paulo, 1,000,000; and Santa Catharina, 550,000. Basing an estimate on the trade in hides and skins, the number of cattle in Bahia may be safely said to reach 1,500,000. Piahy also has a considerable stock-raising industry. In the State of Rio Grande do Sul, where the most important of the jerked-beef establishments are located, about 625,000 beeves are slaughtered each year. In the State of Matto Grosso, which has the next most important industry of the kind, about 605,000 cattle are slaughtered for the same purpose. In the following States the annual figures for slaughtering establishments are: São Paulo, beeves, 135,000; hogs, 132,000; goats, 6,000; and sheep, 9,000. Rio de Janeiro and the Federal District, 225,000 beeves; Minas Geraes, 325,000 beeves. Minas Geraes exports to other parts of Brazil about 300,000 cattle yearly, of a value not far from \$7,500,000. The total value of all pastoral and dairy products supplied to other Brazilian States by Minas Geraes is about \$14,000,000.

São Paulo is said to possess 235,000 horses, 125,000 mules, 65,000 sheep, 140,000 goats, and 1,300,000 hogs; Santa Catharina, 36,000 horses; and Rio Grande do Sul, 250,000 horses and 13,000 mules.

According to figures compiled by the Industrial Association of Brazil, there are at the present time in the Republic 3,420 industrial establishments, with a total capital of 681,848,663 *milreis* (\$204,554,598) and employing 159,601 operatives. The total annual production is estimated at 769,782,108 *milreis* (\$230,934,632).

The Federal District leads in the number of industrial establishments, with 807, having a total capital of 182,314,045 *milreis*, and an annual production of 243,976,542 *milreis*. São Paulo follows with 334 industrial establishments, capitalized at 128,462,191 *milreis*, and with an annual production valued at 120,735,091 *milreis*.

The capital invested in the textile industry represents 40 per cent of the total industrial capitalization of Brazil. The textile manufactures comprise cotton, jute, woolen, linen, silk, and aramina fabrics.

The number of cotton mills is stated as 161, with a capital of 234,028,403 *milreis* (\$70,208,520), and an annual production of 135,025,668 *milreis* (\$40,507,700). The number of mills and the amount invested in this industry in the different States is as follows: Minas Geraes, 36 mills, capital 17,284,372 *milreis*; São Paulo, 23 mills, capital 38,946,190 *milreis*; Rio de Janeiro, 19 mills, capital 43,899,457 *milreis*; Federal District, 15 mills, capital 70,452,259 *milreis*; Bahia, 12 mills, capital 15,758,400 *milreis*; Maranhao, 12 mills, capital 10,482,900 *milreis*; Ceará, 2,405,000 *milreis*. The remaining States have about 1,000,000 *milreis* each invested in this industry.

The jute mills of Brazil are next to the cotton mills in importance both as regards the number and amount invested. The total investment in the jute industry is estimated at 15,799,500 *milreis*, with a total output valued at 22,389,730 *milreis*.

The woolen industry occupies third place in textile manufactures, with a total capital of 14,848,000 *milreis*. According to statistics obtained from 15 woolen mills, the annual production is worth 11,375,000 *milreis*, and the number of employees is 1,957.

The total amount invested in the silk industry in Brazil is estimated at 965,000 *milreis*, while there are 244 persons employed in this industry. Of these mills, 2 are located in the State of Rio de Janeiro, 1 in Rio Grande do Sul, 1 in São Paulo, and 1 in Santa Catharina.

There are 2 linen mills in operation, with a total capital of 1,230,000 *milreis*, and a mill which manufactures the aramina fiber, with a capital of 1,500,000 *milreis*.

The power employed in the operation of these industrial establishments represents a total of 192,284 horsepower. The motive power used is electricity, steam, hydraulic power, gas, and kerosene.

The production of flour is increasing constantly. Since 1904 the national production has exceeded the imports of this article.

RAILWAYS AND INTERIOR WATERWAYS.

The railways of Brazil were originally established, not with the idea of affording or facilitating internal commerce, but with the great purpose of bringing the products of a contributing interior territory to the nearest seaport and of distributing to this interior the merchandise brought in from abroad. A glance at the map will show that, on the Atlantic coast, Pernambuco is the focus of one system, Bahia of another, Rio de Janeiro of a third, São Paulo and Santos (the coffee region) of a fourth, and Rio Grande do Sul, in the extreme south, of

a fifth system, all running practically east and west. Recently, however, the Republic has felt the great need of connecting these various systems by interior railways, running north and south, both to afford interior communication independent of the ocean and to stimulate an internal commerce and settlement. This plan has been succesful north and south of Pernambuco, so that to-day it is possible to travel by rail from the port of Natal to Maceió; in like manner, Rio de Janeiro has been connected with São Paulo, and within a short time travel overland from Rio de Janeiro can be continued as far as the growing port of Victoria, north of the capital. South of São Paulo construction is rapidly extending through the States of Paraná and Santa Catharina, the ultimate destination of which is the Uruguayan frontier.

The railways of the Republic fall into the following classifications:

	Kilos.
Those both owned and operated by the nation, about.....	3, 300
Those owned by the nation but operated under a lease.....	6, 500
Operated under government concessions, with both interest and capital guaranteed.....	2, 000
Operated under government concessions, with interest alone guaranteed.....	2, 000
Lines granted or owned by States.....	6, 200

The total length of railways in operation in Brazil at the close of 1909 was 19,649 kilometers (approximately 12,209 miles), there having been added during the year 591 kilometers (366 miles). Of the total new mileage, the Federal Government is credited with 468.3 kilometers (290 miles), and state governments with 122.7 kilometers (76 miles).

Work is being pushed rapidly on the Madeira-Mamoré Railway, the line which will connect the Mamoré River with the Madeira River, passing around the falls which have heretofore made a direct commercial route from Bolivia to the Atlantic Ocean an impracticable matter. This railway is being constructed by the Brazilian Government under the treaty of Petropolis, in which Bolivia ceded, for a consideration, all its rights in the Acre territory to Brazil, and the latter, among other considerations, agreed to build the railway. The first section runs from Porto Santo Antonio, on the Madeira River, to Jacy Paran, farther up the river. Up to the end of 1909 there had been completed 174 kilometers (108 miles) of line as far as the Mutum Parana River.

The Minister of Communications and Public Works signed on October 25, 1909, a new contract with the Goyaz Railway Company, whereby important changes are made in the proposed route of this line, which is to traverse the State of Goyaz. According to the revised contract, the railway will be built via Catalão, which, after the capital, Goyaz, is the most important city of the State. The contract provides for two branch lines, one to be run to Uberaba, the chief commercial and industrial center of the section known as the

"triangulo mineiro," passing through Araxá, an important stock-raising and diamond-mining district, and with another branch to connect Catalão with Araguary, the terminus of the Mogyana Railway. The first section of the railway has already been opened to traffic and extends from Formiga, the terminus of the West of Mines Railway, to Areias. Work on the line has progressed as far as Porto Real, beyond the San Francisco River.

The Government has authorized the Minister of Public Works to enter into a contract with the "South American Railway Construction Company, (Limited)" for the lease of the Ceará system of railways and the construction of various extensions and branches of these lines. The railways embraced in the lease are the Baturité and Sobral Railways. The Baturité Railway now has 335.18 kilometers (208 miles) of line in operation as far as Miguel Calmon. The company will build an extension of this line from its present terminus to the town of Macapá, as well as two branches to Icó and Crato. It will extend the Sobral Railway from Ipú station to Cratheus, and from Cratheus to Therezina, and build another line starting from Fortaleza, or other convenient point connecting the Baturité and Sobral Railways. Work on the extension from Ipú to Cratheus is progressing satisfactorily. The roadbed, for a distance of 33.8 kilometers, (21 miles) is ready for the laying of the rails, and the rails have been laid for a distance of 25.3 kilometers (15 miles).

The Alcobaça Railway, which is being built between Alcobaça and Praia da Rainha, is finished to a point on the Tocantins River below Itaboca Falls, and a temporary Decauville line has been built connecting the finished section of the railway with the steamers which ply the river above the falls. Work on the railway is being pushed rapidly, and it will not be long before the line will reach a point above the falls, from which point it will be extended to Praia da Rainha, which will, for the present, be the terminus of the line. It is the intention of the company to later extend the line to Cametá. With the construction of this line a large part of the States of Goyaz, Matto Grosso, and Maranhão will be placed in direct communication with Atlantic ports.

Work on the São Luiz-Caxias Railway is progressing rapidly. The work is far advanced on a section 80 kilometers (50 miles) long.

By an executive decree of October 28, 1909, the Government was authorized to contract with the Great Western Limited for the extension of several lines leased to this company. The surveys for these extensions have already been made and work will shortly be begun.

Connection between the Great Western and the Bahia Railway is being made by extending the Timbo branch to Propria, on the San Francisco River, and from this point to Lourenço de Albuquerque, on the Maceio lines.

The Victoria-Diamantina Railway has been completed as far as Derrubadinha station, a distance of 346.6 kilometers (215 miles).

By a decree of December 2, 1909, the Sapucahy Railway Company was authorized to incorporate the Minas and Rio, and Muzambinho railways with its lines, thus forming a system for southern Minas. A company was organized for this purpose known as the "Southern Minas Federal Railways Company."

The São Paulo Railway Company has concluded the line between Pederneiras and Bahurú, and work is progressing rapidly on the line between Rio Claro and Monte Pellado.

The Mogyana Railway Company has opened for traffic the section between Ourinhos and Salto Grande on the Paranapanema.

The Brazilian Northwestern, which is extending its line from Itapura to Corumbá, has 340 kilometers (211 miles) of line in operation between Bahurú and Anhangahy, while the section extending from Jupiá to the Pomba River is almost completed.

The Central Railway has been extended as far as Pirapora on the São Francisco River, or a distance of 1,005 kilometers (624 miles) from Rio de Janerio. The Central Railway now has 1,736 kilometers (1,078 miles) of line in operation.

The Leopoldina Railway has obtained permission to extend its lines into the city of Rio de Janerio and to connect up with the docks. Its line to Victoria, which is to be completed within two years, is to include a sleeping and dining car service, and the contract provides for the establishment of immigrant colonies, the founding of experimental farms, and the development of meat-packing and similar establishments.

Brazil has been favored by nature with a most wonderful system of fluvial arteries. It has within its territory not only the largest river basin, both in area and in length, in the world, but has also perhaps more navigable rivers than any other country. The mighty Amazon is navigable almost in its entire length, as are most of its affluents, while in the southern part of Brazil the Paraguay, Uruguay, and Parana rivers are all navigable.

The Republic has over 10,000 miles of navigable waterways open to river steamers and ocean-going vessels, and 20,000 miles additional which are navigable for light-draft and flat-bottom boats only. Several steamship companies maintain a regular service between points on these rivers, plying on the Amazon, Rio Negro, Purus, Madeira, Tapajoz, Para, Juruá, and Javary. Local steamers ply between Para and Obidos, on the Amazon River, and on the Araguay River from the city of Belem to inland points. The Guama, Tocantins, and São Francisco rivers also have regular steamer traffic.

The Government has signed a contract for the establishment of two steamship lines on the Ibicuhy and Uruguay rivers, in the

State of Rio Grande do Sul. According to the terms of the contract the company will make three round trips per month between Uruguayana and Santo Izidro on the Uruguay River, calling at Itaqui, Sao Borja, and Garruchos, and the same number between Uruguayana and Cacequy, on the Ibicuhy River, calling at Ibicuhy. A navigation service was also established during the year on the Parnahyba River, in the State of Piahy, between Therezina and Santa Philomena.

Bids have been called for for the establishment of a navigation service between São Luiz, in the State of Maranhão, and ports to the north and south. The conditions call for the establishment of three distinct services.

The most important of the Brazilian lakes are the Lagoa dos Patos and the Lagoa Merim. These two lakes form part of the boundary line with Uruguay, and together make a considerable body of navigable water. The former is an enlargement of the Jacuhy River, near its mouth in the Atlantic. It is about 140 miles long and 40 miles broad. At its northern end is the important city of Porto Alegre and at the southern point is the seaport of Rio Grande do Sul.

MEANS OF APPROACH.

The favorable geographical position of Brazil, in the center of South America, places it in touch with all the republics of South America except Chile, and makes it accessible from the United States, Europe, and even Africa, it being but a few days by one of the fast liners from the African to the Brazilian coast. With a coast line on the Atlantic Ocean of more than 5,000 miles, Brazil possesses a number of excellent bays and harbors, among which the port of Rio de Janeiro, world renowned for its scenic beauty, is the largest. The other important ports on the Atlantic are Santos, Pará or Belem, Bahia or São Salvador, Pernambuco or Recife, Rio Grande do Sul, Paranaguá, Porto Alegre, Victoria, Maceió, Fortaleza, Maranhão, Parahyba, Antonina, Florianopolis, São Francisco, Natal, Aracajú, Parnahyba, and Itajahy.

Among the river ports the most important are Manaos, on the Amazon River, 1,000 miles inland; Corumbá, on the Paraguay; Uruguayana, on the Uruguay; and Cuyabá, on the Cuyabá River.

Direct communication is maintained between New York, as well as European ports, and Pará, at the mouth of the Amazon, Manaos, 1,000 miles up the river, and Iquitos in Peru, 1,300 miles still farther inland.

Several steamship companies ply regularly between Brazilian ports, New York, and all the ports of the United States from Boston to New Orleans have occasional communication with them.

Some of the fastest and most elegantly equipped steamers ply between Rio de Janeiro and the chief European ports, making the

run from the latter points in from fourteen to eighteen days. Practically all these international transportation lines make stops at Bahia and Santos, in Brazil, with their ultimate destination at Montevideo, Uruguay, and Buenos Aires, Argentina.

Coastwise navigation is carried on by many local steamers, but the principal lines engaged in this traffic is the Lloyd Brasileiro, supported by the Government.

On December 31, 1909, the Brazilian Government entered into a new contract with the Lloyd Brasileiro Navigation Company, whereby the duration of the concession is extended six years. By the terms of the revised contract the company promises to make a reduction of 20 per cent in the present freight rates charged by the company, and a reduction of 40 per cent on Brazilian products, such as unrefined sugar, raw cotton, coffee, mate, xarque (dried beef), lumber, cereals, etc., when exported from the ports of the states in which they are produced. The new contract provides for the navigation by the vessels of the company of 1,429,348 miles yearly, or an increase of 97,674 miles over the old contract. Ten lines are included in the Lloyd Brasileiro service. The company has recently added three new twin-screw 14-knot freight and passenger steamers to its fleet. The new boats are each of about 6,500 tons gross register, and are now being operated on the line between New York and Barbados, Para, Pernambuco, Bahia, Rio de Janeiro, and Santos, with fortnightly sailings. Other recent additions to the fleet are two large freight-carrying steamers, each of 7,000 tons capacity. This company is subsidized by the Brazilian Government to provide adequate facilities between all the ports of Brazil and the River Plate. It maintains its coastwise and river service with a fleet of 62 steamers. The extension of the line to New York about three years ago gave shippers the advantage of an independent service.

With the completion of the Madeira-Mamoré Railway, Brazil will be in communication with the Republic of Bolivia by a rail and water line. With the other republics of South America and foreign countries the only means of communication is by the maritime routes above mentioned. It is expected that by 1911 communication will be established with Montevideo, Uruguay, by rail.

The total number of vessels entering the harbors of Brazil during the first nine months of 1909 was 14,694, of which 11,045 were native and 3,649 foreign vessels. This is equivalent to a harbor activity of about 20,000 vessels per annum.

POSTS AND TELEGRAPHS.

The postal system of the country, which in 1908 comprised about 3,246 offices and not fewer than 8,500 employees, handles approximately 600,000,000 pieces of mail matter annually. Radical changes were made in the postal service during the year. The new regula-

tions governing the postal service were issued November 11, 1909, and became effective, with the exception of the provisions relating to the reduction of postage rates, on January 1, 1910.

The new regulations provide that domestic postage on letters shall be reduced to 100 reis per 15 grams, and on foreign letters to 200 reis. When the postage provisions become effective, the foreign postage rates of Brazil will be within the province of the Postal Convention, which specifies that the rate per 15 grams shall be 200 reis in Brazil.

The reorganization act provides for important changes in the service of the several bureaus, and an increase in the salaries of the employees, the greatest increase to go to those who have been in the service more than ten years. The personnel of the service will be increased by about 800 new employees. Reductions will be made on the present rates of postal money orders, and facilities provided for handling a much greater volume of business than heretofore. The charge for domestic registry is to be reduced to 200 reis for amounts up to 10 milreis, and 300 reis for amounts up to 15 milreis.

The postal receipts for the year amounted to 8,241,113 milreis, and expenses of operation to 11,227,078 milreis. The number of postal parcels handled during the year was 71,404. Receipts from the parcels-post service amounted to 72,990 francs. The number of international money orders issued was 34,407, and the number paid was 2,539.

An important provision of the act is that for the establishment of postal savings banks, which will receive deposits of from 100 reis to 1,000 milreis. Deposits of from 1 milreis to 1,000 milreis draw interest at the rate of 4 per cent per annum. The depositor may convert his deposit into government bonds, or may withdraw his savings at any time by giving proper notice. Funds held in deposit may be loaned out at interest to duly authorized banks and other credit institutions. This extension of the postal service will, it is thought, encourage economy and thrift among the wage-earners and persons of moderate means, and give them an opportunity to deposit their savings with the security of the Government behind them.

On December 31, 1909, the telegraph system of the Republic included more than 2,000 offices, and 18,874 miles of telegraph lines. Work is progressing rapidly on the strategic line connecting the States of Matto Grosso and Amazonas. The length of this line now in operation is 500 miles.

Early in 1909 the Brazilian Government let a contract for the installation of a wireless system operating from the island of Fernando de Noronha and connecting with various other stations to be erected at different points along the coast. The new wireless stations recently erected for the use of the Madeira-Mamoré Railway Company have been successful in establishing communication between Manaus and

Porto Velho on the Madeira River, a distance of about 800 miles. Announcement is also made that a contract has just been signed between the United Wireless Telegraph Company and an important steamship company serving Brazilian ports, which provides for the installation of wireless stations on 21 ships of the steamship company's line and the erection of eight land stations at convenient points along the Brazilian coast.

The Government has granted concessions for the laying of a cable from Recife to Madeira Island, a line between Nictheroy and Belem on the north, and between Nictheroy and Chuy, on the south, and between Nictheroy and Ascension Island. A German company is preparing to lay a cable from Recife to Monrovia, Liberia.

The use of telephones in Brazil is becoming very general. There are at present 39 telephone systems which have from 2,200 to 3,500 subscribers. Of these systems 15 are the German, 9 are the Kellogg, 3 the Bell, 4 the American system, and the others Swedish and French. The capital of the companies operating these lines varies from \$800 to \$1,190,000. Five lines alone have more than 500 subscribers.

The telephone system of Rio de Janeiro, the most important, operated by an American syndicate, had 21,000 miles of underground wires and 3,500 subscribers at the end of 1908.

The Bahia system, also American, has 1,400 miles of wire and 554 instruments of the Bell system. The Pernambuco system has about 1,000 miles of wire and 631 instruments. The Pelotas system of Rio Grande do Sul has 32,400 miles of wire and 1,479 instruments, and São Paulo, the most important after Rio de Janeiro, has 3,300 miles of wire and 1,997 Kellogg instruments.

An American company is establishing a line between Rio de Janeiro, Petropolis, Nictheroy, Campos, and other important points in this district.

EDUCATION.

With the declaration of independence in 1822, the aspirations for a development in intellectual life became apparent throughout the country, and a decree was issued in 1823 authorizing any citizen to establish private schools without previous special license or authority.

Congress is empowered by the provisions of the constitution to promote in the country the development of literature, arts, and sciences, but all instruction given in public institutions shall be secular. Primary education is compulsory in some States, and in most of them, even those least populous and farther removed from the capital, efforts have been made to establish this system of education, which will undoubtedly develop successfully.

According to statistics compiled by the Statistical Bureau of Rio de Janeiro, the primary schools of the Republic number 11,147, with a total matriculation of 565,922 pupils, and secondary schools, 327,

with an enrollment of 30,258 pupils. These figures comprise both public and private schools.

A presidential decree, dated September 23, 1909, authorizes the establishment of free industrial schools in the capitals of the States. In order to make industrial education more general throughout Brazil, the Government offers to aid the state administrations, municipal governments, and private associations which shall establish trade schools. Trade schools are now established in the States of Piauí, Maranhão, Rio Grande do Norte, Paraíba, Pernambuco, Alagoa, Espírito Santo, Rio de Janeiro, Paraná, Matto Grosso, and Rio Grande do Sul.

Brazil has no real university. The national establishments devoted to higher or university education are the two law schools of Pernambuco and São Paulo, the two medical schools of Rio de Janeiro and Bahia, the polytechnic school at Rio de Janeiro, the mining school at Ouro Preto, State of Minas Geraes, and the school of fine arts in Rio de Janeiro.

GENERAL INFORMATION.

On October 30, 1909, a treaty was concluded with Uruguay defining the frontier line with that country, in so far as it affects Lake Merim and the Jaguarão river.

The National Congress approved on September 4, 1909, the agreement concluded with Peru on April 1, 1908, providing for the navigation of the Japurá or Caquetá river.

The contract entered into by the State Government of Bahia in September, 1909, for the construction of a new railroad line 62 miles in length has been revised. By the terms of the new contract the line will have a length of about 280 miles, extending from Camamu Bay to the Great Falls on the Jequitinhonha River, near the boundary of the State of Minas Geraes. The line will traverse a very rich and hitherto unexplored region.

President PEÇANHA has asked authority from Congress to make the necessary contracts and issue the necessary bonds for the electrification of the Central of Brazil Railway in and near Rio de Janeiro, for the reason that the number of passengers carried increased from 13,423,779 in 1903 to 20,128,387 in 1908, while the means of giving service have not been proportionate, resulting in failure to meet unusual demands, as on Sundays and holidays. The preliminary estimates and surveys provide for the third-rail system, and it is expected that the work, without materially interfering with traffic, can be finished within two years, at an estimated cost of \$2,500,000.

The President has also signed a decree affording the American-Canadian syndicate, which owns or controls the public utilities of Rio de Janeiro, permission to electrify the railway from the city to the top of Mount Corcovado, the unique peak which rises from the edge of the city to a sharp point 2,300 feet above the ocean at its base.

This will enable the company to supply a rapid and cheaper service up this mountain, near the top of which a new and modern hotel is to be constructed.

Work is fairly under way on the great harbor improvement scheme at Rio Grande do Sul, with the assurance that the task will be completed before the end of 1913. The city is situated on a magnificent harbor many miles in extent, perfectly protected, and having a minimum depth of 36 feet. Opening into this harbor is Lagoa dos Patos, an inland body of water stretching nearly 200 miles to the northeast, 100 miles of which is 20 to 30 miles wide and 30 feet deep. Leading into it from the west is the Rio S. Gonçalo, the outlet of another large body of inland water, Lagoa Mirim. On the Rio S. Gonçalo, near the Lagoa dos Patos, is the city of Pelotas, about the size of Rio Grande, while at the head of the Lagoa dos Patos is Porto Alegre, the capital of the State, with 100,000 inhabitants. There is already a 12-foot channel dredged to Pelotas, and the Government is deepening the narrow, tortuous channel to Porto Alegre to 10 feet, so that Rio Grande will soon have improved inland water transportation to a considerable territory.

Port improvement works are in progress at Manaus, Pará, Natal, Cabedello, Recife, Bahia, Rio de Janeiro, Santos, Florianopolis, and Rio Grande. Similar works are under survey at the ports of Itaquí, Camocim, Fortaleza, Jaguará, Victoria, and Paranaguá. Port works at Corumbá are in progress.

At the port of Pará the first section of the quays, 400 meters in length, has been opened, and three warehouses have been erected and are now in operation and a fourth will soon be completed. The channel of approach has been dredged to the depth of 8 meters.

The quay wall at the port of Rio de Janeiro was increased during the year by 539 meters, the total length being now 2,433 meters. Five warehouses, covering an area of 17,500 square meters have been erected and work on six others is far advanced. The finished section of the wharf is equipped with modern warehouses and all other needful appliances for the economical operation of the port. During the year the Government called for proposals for the lease of the port quays, and has already awarded the contract. The revenues of this port in 1909 amounted to 1,592,154 milreis.

A Presidential decree dated November 18, 1909, authorizes the creation of a weather and astronomical bureau, subordinate to the Department of Agriculture, Industry, and Commerce. The new bureau will make a study of the climatic conditions of the country and will publish quarterly and annual reports, giving the results of its meteorological observations. It will issue weather forecasts for the benefit of agriculture, commerce, and navigation, and will determine the geographical position of the principal points of the Republic and publish geographical charts and maps.

CHILE

GEOGRAPHICAL SKETCH.

The Republic of Chile extends over more than thirty-eight degrees of latitude, from $17^{\circ} 57'$ to $55^{\circ} 59'$ south, stretching from the Samu River to Cape Horn, and occupying a long, narrow strip of land between the Andean mountain range and the Pacific Ocean, with a coast line of 2,625 miles and an average width of only 90 miles. The Republic has a total area of 291,500 square miles, with a population, according to the census of 1907, of 3,249,279.

By reason of its peculiar shape access is afforded to the entire territory, and the exploitation of its mineral and other resources is both easy and profitable. As a mineral-producing country Chile is best known for her rich nitrate fields, from which the excellent fertilizer known as nitrate of soda is procured. Copper, gold, silver, and iron are also found. In the central and southern divisions of the Republic, agriculture, viticulture, apiculture, and fisheries thrive, while extensive forests furnish various kinds of cabinet and other woods.

HISTORICAL SKETCH.

FRANCISCO PIZARRO having conquered Peru, DIEGO DE ALMAGRO, one of his lieutenants, was dispatched with an army to the south to explore the country and take possession of it in the name of the King of Spain. He crossed the desert, which is now the great nitrate district, and after considerable difficulty managed to advance as far as the river Maule. There, however, he encountered the warlike Indian tribe of Araucanians and was obliged to retreat. Another expedition was sent by PIZARRO in the year 1540, commanded by his quartermaster, PEDRO DE VALDIVIA, who was more successful than his predecessor, ALMAGRO, and although continually harassed by the Indians, was able to advance as far south as the present site of Santiago. Here he founded the city which is to-day the capital of the Republic.

Although Spanish colonists in numbers came to Chile, but little progress was made, owing to the continual attacks to which the settlements were subjected from the indomitable Araucanians. These attacks continued until the year 1640 when the Spanish governor concluded a treaty with the Indians. By this treaty the river Bio-Bio was recognized as the boundary line between the whites and the Indians, and the aid of the latter was enlisted in defending the country against the invasions of the English and Dutch buccaneers.

When, in the early part of the nineteenth century, the spirit of independence aroused the South American Continent, Chile in re-

sponse, on September 18, 1810, deposed the Spanish authorities and created a provisional government.

Spain, however, was not willing thus easily to be deprived of its South American colonies and poured troops into Chile from Peru, the royalist stronghold. Finally, through the aid of the Argentine patriot and soldier, General SAN MARTÍN, the Spaniards were defeated at the battle of Maipu on April 5, 1818, thus practically ending the Spanish power in Chile.

General O'HIGGINS, who had distinguished himself in the war for independence, was appointed supreme dictator of the Chilean nation, and on October 23, 1818, a constitution which had been drafted by a committee appointed by O'HIGGINS was formally adopted by the people.

Among the great men who contributed to the final molding of the Republic in its present shape one of the greatest is Don DIEGO PORTALES, who was Minister of State under President PRIETO (1831-1841). PORTALES set the national finances in order and was largely responsible for the present constitution. The present incumbent, Señor Don PEDRO MONTT, was inaugurated on September 18, 1906, for a term expiring in 1911.

CONSTITUTION AND GOVERNMENT.

The Constitution of the Republic of Chile was formally adopted on May 25, 1833. Under it Chile has a single, republican form of government, with the customary division into legislative, executive, and judicial branches.

The President, whose term of office is five years, is chosen by electors, who, in their turn, are elected by direct vote. The President can not serve for two consecutive terms, and he may not leave the country during his term of office or for one year after the expiration of the same, except with the consent of the Congress.

He is assisted by a Council of State, consisting of 11 members, 6 of whom are appointed by Congress and 5 by the President, and who are directly responsible to the Congress. He is further assisted by a Cabinet of 6 ministers or secretaries, who, although appointed by the President, are likewise responsible to Congress, and may at any time be forced to resign, if Congress passes a vote of lack of confidence. These are as follows: Minister of Interior, Minister of Foreign Affairs, Minister of Justice and Public Instruction, Minister of the Treasury, Minister of War and Marine, Minister of Industry and Public Works.

The President is allowed a salary of 18,000 pesos (\$6,750) per annum and an allotment of 12,000 pesos (\$3,500) for expenses.

The legislative power is vested in the National Congress, consisting of a Senate and Chamber of Deputies, the former composed of 32 and the latter of 94 members. Senators are elected by direct accumulative

vote, in the proportion of one for every three deputies, for a term of six years, but the Senate is partially renewed every three years. Deputies are elected by direct vote, one for every 30,000 inhabitants or fraction thereof not less than 15,000, for a period of three years.

During the recess of Congress a standing committee consisting of 14 members, of which 7 are Senators and 7 Deputies, acts for the Congress and is consulted by the President upon all matters of importance.

The judiciary of the country consists of a national Supreme Court of 7 members, convening at the city of Santiago, 6 courts of appeals located at Santiago, Valparaiso, Tacna, Serena, Talca, and Concepcion, consisting of 5 members each, with the exception of those at Concepcion and Santiago, which have 8 and 12 members, respectively. There are also a number of minor courts located in the different provinces and districts.

INTERIOR GOVERNMENT.

The Republic of Chile is divided into 23 provinces and 1 national territory, which are again divided into departments, districts, and municipalities. The provinces are governed by an *intendente* appointed by the President of the Republic, while the departments are governed by a governor and the districts by inspectors. The popular element is represented by municipal councils elected by direct vote in each municipality.

Following are the provinces of Chile with their respective capitals:

Province.	Capital.	Province.	Capital.
Antofagasta.....	Antofagasta.	Malleco.....	Angol.
Aconcagua.....	San Felipe.	Maule.....	Cauquenes.
Atacama.....	Coplapo.	Nuble.....	Chillan.
Arauco.....	Lebu.	O'Higgins.....	Rancagua.
Bio-Bio.....	Los Angeles.	Santiago.....	Santiago (also capital of the Republic).
Cautin.....	Temuco.	Tacna.....	Tacna.
Chiloe.....	Ancud.	Talca.....	Talca.
Colchagua.....	San Fernando.	Tarapaca.....	Iquique.
Concepcion.....	Concepcion.	Valdivia.....	Valdivia.
Coquimbo.....	La Serena.	Valparaiso.....	Valparaiso.
Curico.....	Curico.	Magallanes (Territory).....	Punta Arenas.
Linares.....	Linares.		
Llanquihue.....	Puerto Montt.		

The principal cities, with the population of each, are as follows: Santiago, 400,000; Valparaiso, 150,000; Concepcion, 51,000; Iquiqui, 45,000; Punta Arenas, 20,000; Antofagasta, 20,000; Talca, 45,000.

ARMY AND NAVY.

The Chilean national army comprises among its regular troops 16 regiments of infantry, 6 regiments of cavalry, 3 regiments of field artillery, 2 regiments of mountain artillery, 1 battalion of railway troops, 1 section of machine guns, and 4 companies of sappers and miners.

Under a law enacted by the National Congress in 1910, the land and naval forces are fixed at 23,216 men; of this total, about 17,132 men represent the number of the land forces actually under arms. The war strength of the Republic is estimated at about 150,000 men.

The present Chilean navy consists of more than 30 vessels. The principal classifications show 3 armored battle ships, 5 cruisers, 4 torpedo boats, 7 torpedo-boat destroyers, and numerous auxiliary ships. Two battle ships of the *Dreadnaught* type are projected, and if sanctioned by Congress will be built within a short time. The personnel of the navy aggregates 6,084 officers and men.

CHILE IN 1909.

In most directions Chile enjoyed a prosperous year and has recovered from the disaster of the earthquake in 1906. The demarcation of the Argentine-Chilean boundary progressed rapidly, and it is believed that all questions of this nature between the two Republics will be settled in 1910. Great interest was taken by both Government and people in the preparation for the celebration of the centennial of national independence, which is to occur at Santiago in September of 1910, which will be developed as an agricultural and fine arts exhibit.

Financially, 1909 was not so prosperous a year as 1908. In 1908 there was a net revenue remaining in the Government Treasury, but an estimate of expenditures and income for 1909 could not be made without admitting a deficit to the amount of \$11,000,000. However, during the year the Minister of Finance, by careful readjustment of these items, was able to strike the balance with a deficit of less than \$5,000,000 gold. As all indications for 1910 are favorable, there is every prospect that much of this deficit will be overcome during the present year.

The year was a good one agriculturally. More than the average crops were obtained and prices advanced. Farm products were exported to a greater extent than in any previous year, and the area under cultivation was increased both by the natural growth of farming interests and by the development of government land by new settlers. More farm machinery is in use and more up-to-date methods are employed than ever before. Chilean wheat is becoming recognized in foreign trade, and carries the highest quotations in the English market. By the extensive plans of irrigation to which the Government has committed itself, large areas of agricultural land will be opened for development, and even many tracts hitherto relatively sterile will be noticeably increased in their productiveness.

In commercial relations, the year 1909 shows a small reduction of both imports and exports compared to 1908. Imports from Germany

decreased, while those from Great Britain and the United States increased. Manufacturing interests were favorably conducted. The shoe and leather trade was prosperous, and the mining interests advanced. Such local manufacturing as that of cement and steel has prospered considerably, plants for both of these products running to their full capacity. The cultivation of grapes and the making of wine is so firmly established that they are even finding a steady market for export.

The increase of railway mileage within the Republic went on steadily, the two most noticeable features in this regard being the movement toward completion (April, 1910) of the Chilean section of the Transandean Railway, and the establishment on a substantial commercial basis of the work for the railway from Arica toward the Bolivian frontier, with ultimate destination at La Paz.

Immigration into Chile is becoming more popular and increases from year to year. The tide has, however, turned from Germany, from which years ago great numbers of settlers came to the southern part of the Republic, so that the large proportion of the emigrants come to-day from Spain and Italy. Chile is taking actual steps to increase immigration and is offering material inducements for good workmen in both the shops and the fields.

FINANCE.

The revenue for the year 1908 amounted to 72,447,364 pesos, gold, and 132,959,840 pesos, paper. On October 5, 1909, the Minister of Finance presented a statement to Congress estimating the revenues for the year 1909 as follows:

	Pesos.
Ordinary revenue in gold.....	68,500,000
Ordinary revenue in paper.....	127,300,000

Estimating the gold peso at 36½ cents and the paper peso at 21 cents (average of the year), the total revenue of the year would amount to \$51,735,500 United States gold.

Expenditures at the same time were estimated as follows:

	Pesos, paper.	Pesos, gold.
Ordinary expenditures.....	172,584,404	58,171,878
Extraordinary expenditures.....	21,545,484	4,050,000
Total.....	194,129,888	62,221,878

Again, reducing to American gold as above, this shows an expenditure of \$63,478,262. There was a surplus for the year 1908 of 399,533 pesos, paper. Including this amount in the receipts, the deficit of the year was estimated at \$11,658,860 United States gold.

In a statement made in the Chamber of Deputies, February 12, 1910, the Minister of Finance stated that owing to the increased export of nitrate, and consequently an increased revenue derived therefrom, and to a decrease in expenditures of about 6,000,000 pesos, the deficit would amount for the year to 24,800,000 pesos paper. At the same rate of exchange as above, this reduces the deficit to \$5,208,000 gold.

In order further to reduce the deficit, the Minister stated that about 14,000,000 pesos was expected from the sale of lands in Valparaiso and in the Magellan and nitrate territories.

The Budget for the year 1910 estimates receipts at 69,000,000 pesos, gold, and 138,575,000 pesos, paper, and the expenditures as 52,725,003 pesos, gold, and 163,739,766 pesos, paper. At the present rate of exchange this will mean a surplus of between \$600,000 and \$700,000 United States gold.

At the beginning of the year 1910 the external debt of Chile amounted to £23,036,736, and was composed of the following obligations:

Coquimbo Railway.....	£234, 240	4½ per cent of 1895.....	£1, 758, 400
4½ per cent loan of 1885	594, 709	5 per cent of 1896.....	3, 608, 300
4½ per cent of 1886.....	4, 627, 929	5 per cent of 1905.....	1, 322, 115
4½ per cent of 1887.....	898, 400	5½ per cent municipality of	
4½ per cent of 1889.....	1, 303, 832	Valparaiso.....	117, 400
5 per cent of 1892.....	1, 542, 990	4½ per cent of 1906.....	3, 388, 980
International 6 per cent loan		5 per cent of 1909.....	3, 000, 000
of 1893.....	108, 000		
4½ per cent of 1893.....	531, 441	Total.....	23, 036, 736

The internal debt, not including the paper currency, amounts to 15,659,344 pesos, paper, of which over 6,000,000 pesos, paper, is represented by the obligations of the Chile-Bolivia Treaty. The paper currency consists of 150,000,000 pesos, paper, of a par value of 18d. On January 5, 1909, the exchange value of the paper peso was at its highest, 13 $\frac{2}{16}$ d., which is about 64 per cent of its par value. It reached its lowest point during May, when it went down to a fraction under 10d., or to about 54 per cent of its par value. At the close of the year the peso was worth about 11 $\frac{1}{16}$ d., but is now a little higher. The average during the year 1909 was about 10½d., or 21 cents United States gold.

The total deposits in the banks on December 31, 1909, were 394,614,515 pesos, gold.

COMMERCE.

The total foreign trade for Chile for the year 1909 amounted to 568,572,672 pesos, gold. The imports were 262,082,763 pesos, and the exports, 306,429,909 pesos. Compared with the year 1908, there was a small reduction in trade of both imports and exports. The

figures for 1908 were: Imports, 267,264,169 pesos, and exports, 319,149,072 pesos, making a total of 586,413,241 pesos.

The Chilean gold peso has a fixed value of 18d. sterling. Reduced to United States gold, the value of Chilean foreign trade was as follows:

	1908.	1909.
Imports.....	\$96,215,101	\$94,349,795
Exports.....	114,892,666	110,314,767
Total.....	211,107,767	204,664,562

The value of imports by principal countries of origin for the two years was as follows:

Country.	1908.	1909.	Country.	1908.	1909.
Great Britain.....	\$30,630,809	\$31,842,746	Australia.....	\$6,266,614	\$3,201,287
Germany.....	27,555,784	22,436,041	Belgium.....	4,555,758	2,751,774
United States.....	8,697,289	9,601,084	Italy.....	2,241,840	2,579,899
Argentine Republic.....	3,845,824	6,617,054	India.....	2,767,891	2,551,506
France.....	4,355,845	5,663,495	Spain.....	977,018	903,026
Peru.....	3,719,932	4,737,727			

The percentages of Chilean import trade enjoyed by the five leading countries in 1908 were: England, 31.5; Germany, 28.3; United States, 8.9; Argentine Republic, 4; and France, 4.5. For 1909 the percentages were: England, 33.4; Germany, 23.9; United States, 10; Argentine Republic, 6.9; and France, 5.9.

By major classifications, the principal imports for the two years were as follows:

Imports.	1908.	1909.	Imports.	1908.	1909.
Textiles.....	\$20,407,329	\$23,090,729	Animal products.....	\$6,786,839	\$10,065,394
Mineral products.....	17,020,090	16,845,468	Paper, etc.....	2,808,331	2,537,925
Coal, oils, etc.....	16,990,077	16,532,359	Chemical products.....	1,983,176	2,016,405
Vegetable products.....	8,540,045	10,508,948	Wines and liquors.....	1,883,792	1,956,006
Machinery.....	19,336,529	10,174,882	Arms.....	663,148	828,316

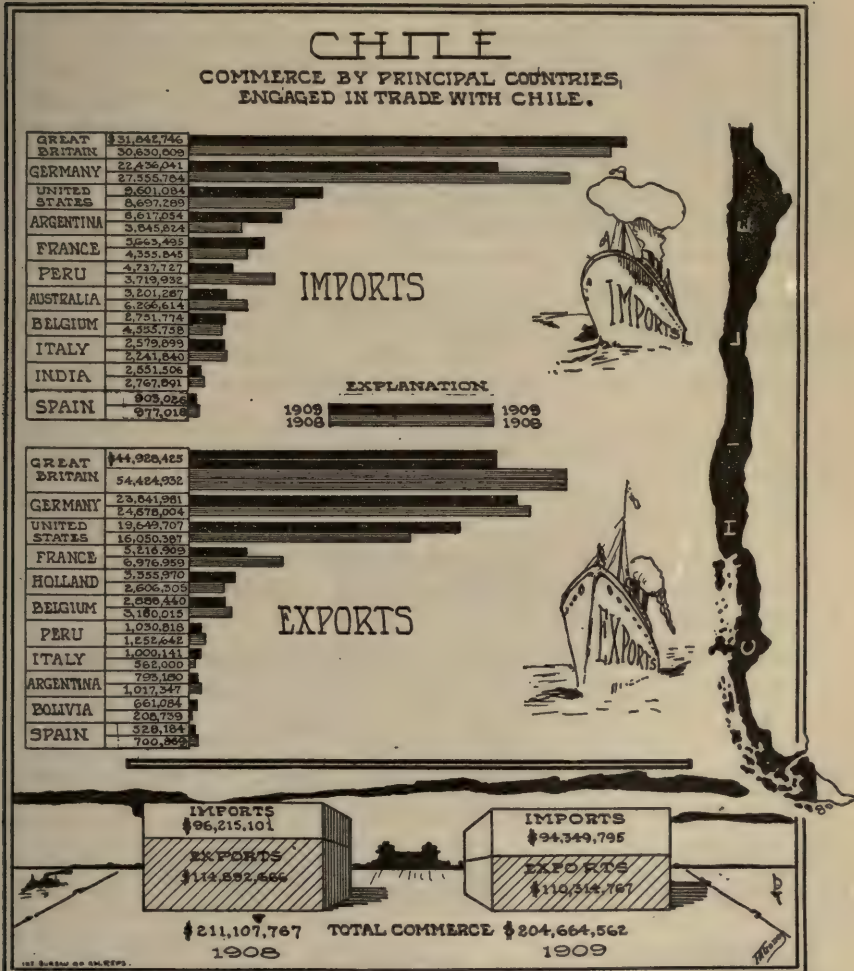
In textiles, nearly one-half the imports, \$10,412,753, were from Great Britain; next came Germany with \$5,512,716; India was third with \$2,305,570; and France fourth with \$2,214,008. The United States sent textiles only to the amount of \$744,498.

In mineral products Germany led with \$6,365,454, closely followed by Great Britain with \$6,185,639; Belgium was third with \$1,775,124, and the United States fourth with \$1,495,919.

Of coal, oils, etc., Great Britain led with \$7,365,206, followed by the United States, \$3,332,720, Australia, \$3,191,815, and Peru, \$1,681,476.

In vegetable products Peru led with \$2,721,470. Then, in order, came Germany, \$1,704,323, Great Britain, \$1,493,931, and the United States, \$1,299,001.

With the exception of small quantities from Belgium and France, practically all the machinery imported came from three countries, Germany, \$4,122,739, Great Britain, \$3,987,823, United States, \$1,396,477.



Nearly two-thirds of the animal products, \$6,386,801, came from the Argentine Republic.

More than one-half the paper, etc., came from Germany, \$1,352,571; the United States followed with \$485,079, and Great Britain with \$311,776.

Germany led also in chemicals, \$817,347, followed by Great Britain, \$479,511, France, \$353,295, and the United States, \$232,282.

In wines and liquors the principal importation was from France, \$613,728, followed by Great Britain, \$466,306, and Italy and Spain each with \$235,667.

Germany and Great Britain were the principal exporters of arms to Chile, the former sending \$353,253 and the latter \$292,488.

In total exports to Chile there was a decrease for the year 1909, as compared with the year 1908, of \$7,935,014.

The exports to the principal countries for the two years were as follows:

Country.	1908.	1909.	Country.	1908.	1909.
Great Britain.....	\$54,424,932	\$44,928,425	Peru.....	\$1,252,642	\$1,030,818
Germany.....	24,678,004	23,841,981	Italy.....	562,000	1,000,141
United States.....	16,050,387	19,649,707	Argentine Republic.....	1,017,347	793,180
France.....	6,976,959	5,216,909	Bolivia.....	208,739	661,084
Holland.....	2,606,305	3,355,970	Spain.....	700,869	528,184
Belgium.....	3,160,015	2,888,440			

The following table shows the percentage of Chilean exports in 1908 and 1909 to the countries named:

	1908.	1909.		1908.	1909.
	<i>Per cent.</i>	<i>Per cent.</i>		<i>Per cent.</i>	<i>Per cent.</i>
Great Britain.....	47.5	42.1	United States.....	14	18.4
Germany.....	21.5	22.3	France.....	8	4.9

There was a considerable increase in the exports to Holland, Italy, and Bolivia, and a decrease in the exports to Belgium, the Argentine Republic, and Spain.

The principal exports for the two years are classified as follows:

Exports.	1908.	1909.	Exports.	1908.	1909.
Mineral products.....	\$99,071,027	\$86,949,963	Animal products.....	\$6,057,610	\$8,340,730
Vegetable products.....	8,846,617	11,171,568	Wines and liquors.....	67,818	56,532

The largest export of the mineral products, \$32,341,806, went to Great Britain, \$21,154,027 to Germany, and \$19,441,743 to the United States.

The bulk of the vegetable products, \$7,242,223, went to Great Britain. This was also true of the animal products, \$5,331,180 going to that country.

The principal articles of export to the United States for the year of 1909 were copper concentrates, iodine, nitrates, and silver ore.

According to the National Society of Mining, which collects and publishes data on mineral production in Chile, the following is a statement of the principal minerals produced for the last two years:

Substances.	1908.	1909.	Substances.	1908.	1909.
Nitrate (quintals).....	19,709,743	21,015,125	Common salt (quintals)...	15,250	20,463
Copper (kilograms).....	42,096,731	42,726,145	Silver (grams).....	52,435,071	44,282,531
Coal (tons).....	939,836	898,971	Gold (grams).....	1,188,522	1,268,414
Iodine (kilograms).....	330,090	474,200	Sulphur (kilograms).....	2,704,722	4,507,707
Borax (kilograms).....	35,039,054	32,218,042	Sulphuric acid (kilograms)	797,600	1,415,000

The unit of quantity for coal is metric ton (2,204.6 pounds), and for nitrate and salt the metric quintal (220.4 pounds). For the other articles, the unit given is the kilogram (2.2 pounds), except for the gold and silver, which is given in grams (15.43 grains).

The total value of mineral production for 1908 was 268,094,228 pesos, which is equal to \$96,522,922.08, and for 1909 was 261,118,827 pesos, which is equal to \$94,002,777.72. This decrease is due to the fall in price of nitrate from 8s. 1d. (\$2) in 1908 to 6s. 11d. (\$1.70) in 1909. The less than 20,000,000 metric quintals produced in 1908 was valued at 215,033,296 pesos, while the more than 21,000,000 metric quintals produced in 1909 was valued at 208,470,040 pesos.

The value of the copper produced in 1909 was 26,447,516 pesos, as against 27,156,579 pesos in 1908. In the case of copper, there was also an increase in production with a decrease in value, though not so marked as in the case of nitrate.

The iodine produced in 1908 was valued at 3,928,171 pesos, and in 1909 at 5,571,850 pesos.

The value of coal produced in 1908 was 13,157,704 pesos, and in 1909, 11,686,623 pesos.

INDUSTRIES.

Mining, due to the extensive working of the great nitrate of soda deposits, takes first place among the industries of the Republic. The association which for many years has controlled the output and export of Chilean nitrate, the ranking product of the country, decided to discontinue operations as a company from April 1, 1909. The total capital invested in the nitrate industry of Chile is estimated at approximately \$127,500,000, of which amount \$53,500,000 represents British interests, \$52,500,000 Chilean, and \$16,500,000 German. The year's production was slightly in excess of the 2,000,000 tons fixed as the exploitable quota, being about 50,000,000 Spanish quintals of 101 pounds.

More nitrate was produced in Chile during 1909 than during any previous year by about 3,057,000 Spanish quintals. During the year the United States took nitrate to the value of \$18,769,235.72 against \$14,765,249.69 for 1908, and \$16,899,722.52 for 1907. In 1909 the exports of nitrate amounted to over 46,000,000 quintals (of 46 kilos each). The average price for the 95 per cent nitrate, free on board, was 6s. 11d. per quintal in 1909, against 7s. 7½d. in 1908.

The official board of engineers has reported to the Chilean Government that there are undeniably in sight 4,483,000,000 quintals of nitrate in the deposits of the country. Antofagasta is credited with 4,103,000,000 and Tarapaca with 740,000,000 quintals. A previous estimate had fixed the amount at 1,603,000,000 quintals.

A presidential decree was issued on November 20, 1909, whereby a commission charged with the interests of the nitrate industry was created. The duties of the commission are to make a thorough investigation of the methods of exploiting the nitrate deposits and of cheapening the production, to improve the present system of transport, and to organize the sales of nitrate through a system of propaganda which shall demonstrate the value of the product in new markets.

Borate production is placed at 28,000 tons annually, with a valuation of \$4,000,000, and so extensive are the deposits that Chile could easily supply the whole world.

Sulphur production does not meet the necessities of the home market, although large deposits are known to exist in the Provinces of Tacna and Coquimbo. Extensive deposits of sodium chloride are under development, notably those of Tarapaca, where a bed with a depth of 20 meters extends over a large area.

Guano has been preserved to satisfy national consumption, and the deposits are being worked in accordance with agricultural requirements.

Sulphuric acid is produced in the Guayacan factory, the catalytic system being employed, and the product being largely used for metallurgical purposes.

Coal mining does not meet the country's requirements, and there is consequently a yearly importation of over 1,000,000 tons, mainly from Australia and England. A strong effort is being made to open up the very extensive coal fields of the Province of Arauco, south of Coronel. A much better grade of coal is found in the interior of that Province than has hitherto been mined in Chile for commercial purposes. It is said to be very good coking coal and suitable for use in the Chilean navy. The state railways of Chile consume annually from 350,000 to 400,000 tons of coal, of which about one-half is imported.

During 1909 about 2,000,000 tons of coal were consumed in Chile, of which 1,113,993 tons were imported, against 1,311,488 tons for 1908, and 1,549,615 tons for 1907. Of this England furnished 653,626 tons against 547,532 tons for 1908, and Australia 500,367 tons for 1909 against 756,966 tons for 1908. Of the imported coal 1,097,603 tons were for steam purposes, and 56,390 tons for smelting. Practically all of the smelting coal came from Australia. The mines of Chile produced about 770,000 tons of steam coal during the year,

against 825,000 tons for 1908. During the year examinations were made at several points in Chile at and south of Concepcion, and several veins of steam coal were located.

Gold mining is less actively carried on in late years than was formerly the case, although the exploitation of placer gold is increasing. These deposits have a great future, particularly in Cautin, Valdivia, and Magellan, in the southern part of the Republic. Hydraulic and dredge systems have recently been installed, but as the work has been largely experimental the best results have not yet been attained.

The mining energies of the country have been directed largely to copper. The mean copper percentage of ores worked in Chile has been $9\frac{1}{2}$, a portion of which is sent abroad as ore for treatment. The old mines of Teniente are being successfully worked, and the development of workings at Collahuasi, Calama, and Chiquicamata, as well as the exploitation of certain lower-grade deposits, have occasioned greater activity in copper mining. The greatest depth arrived at in the Republic is about 1,000 meters at the Dulcinea mine in Copiapo, but as a rule the operations are not carried on below 200 to 500 meters. Large copper mines and smelting establishments are located at Cerro Blanco, Carizal Alto, Jarilla, and Astilla, and other smelting works have recently been established at Chañarcillo, in the Department of Copiapo, giving considerable impulse to copper mining in that district. All of these districts have rail connection with the nearest ports, thus affording easy means of transportation and communication.

During the year much development work was done in the copper mines of Chile, and it is expected there will be a large increased production of this metal during 1910. The production for 1909 equaled that of any year since 1895, save that of 1908.

Petroleum and natural gas have been discovered about 500 miles south of Valparaiso. This discovery was made in the vicinity of a fairly rich gold-mining district and not very far from the site of the extensive steel works being built near Corral.

The production of nonmetallic substances, such as lime, cement, chalks, marble, clay, etc., is sufficient for national needs; earthenware factories are in operation at Lota, and cement factories are successfully operated at La Calera and El Melon.

Stock farming, and agriculture generally, represent important branches of Chilean industry, and modern machinery is coming into very general use in most districts. The lumber industry in the far south of Chile also merits special attention at this time, as it is in an active stage of development.

The agricultural interests enjoyed a prosperous year during 1909. Crops were above the average and prices good. The exports of farm products exceeded any previous year. Quite a large amount of government land was taken up, and farming in general received

much attention. The Government did much to aid farming interests by taking part in the development of irrigation systems, experimental plant work, and in assistance in combating disease and insects that have attacked the animal and plant life of the country. An appropriation of \$40,000 has been made by the Government to cover the expenses of an international agricultural exposition during the month of September, 1910, at Santiago, as a part of the centennial festivities.

According to the best estimates obtainable, there are 37,065,000 acres of land either under cultivation or suitable for cultivation in Chile out of a total acreage of 186,119,673, or only about 20 per cent of the whole. Of the 37,065,000 acres suitable for cultivation only 7,828,128 acres were under cultivation in 1902, or about 21 per cent. The lands then under cultivation were employed about as follows, in acres: Devoted to wheat, 2,471,000; cleared for grazing, 1,482,600; natural prairie land, 1,235,500; meadow lands, 1,235,500; barley, 494,200; corn and beans, 444,780; vineyards and orchards, 247,100; potatoes, 123,550; peas, lentils, and chick peas, 83,898; total, 7,828,128.

Much of the land suitable for cultivation that is not covered by the foregoing statement is found in the large landed estates containing from 10,000 to 50,000 acres, of which not 25 per cent is under cultivation; most of the balance is government land, principally covered with dense forests.

Since 1902 more new lands have been put under cultivation in Chile than ever before during a like period, and in general the methods employed are much in advance of what they were then. Since that year agricultural machinery has been imported to the value of \$6,612,775 gold, of which the United States supplied about 70 per cent.

The cultivation of flax is being encouraged by the Government and will, it is anticipated, form a valuable source of wealth for the nation. Some tobacco of very good quality is also grown in the country, but it will be some years before the supply will be equal to the demand for this article.

The cultivation of grapes and the making of wine has now become a very important industry. At the beginning of 1909, there were 145,894 acres of vineyards in Chile, of which 47,103 acres were irrigated. These vineyards contained 254,086,859 native vines and 53,173,715 vines of French origin. During 1908 these vineyards produced 30,472,333 gallons of wine and 974,092 gallons of spirituous liquors.

The future looks promising for the development of agriculture, as the Government is doing much to open up heretofore undeveloped sections of the country by building railways, assisting irrigation

enterprises, bettering wagon roads, and encouraging immigration. The soil of Chile is very fertile, but its yield could be increased from 200 to 300 per cent by the application of more modern methods and the use of up-to-date machinery.

The pastoral industry of the country, as a result of better transportation facilities, is being developed. The Territory of Magellan, the southernmost political division of the Republic, is an excellent field for stock raising. This extensive territory, comprising about one-fourth of the total area of Chile, contains approximately 48,000,000 acres of land, and owes its present prosperity principally to sheep raising and the working of its placer mines. Some idea of the fortunes obtained from the former industry may be had when it is remembered that persons engaging in this occupation ten or fifteen years ago with a capital of from \$6,000 to \$10,000 are now the owners of flocks ranging from 60,000 to 90,000 sheep.

About 450,000 cattle, 600,000 sheep, and 140,000 hogs are slaughtered annually. There are no published reports covering the matter of hides, but from general information it can be gathered that the stock on hand is comparatively small, since the exports of tanned leather have been rather heavy, amounting to 3,546,730 pounds in 1907 and 4,237,420 pounds in 1908. The exportation of hides for 1908 was 3,496,020 pounds as compared with 2,294,148 pounds in 1907.

The exports of frozen lamb carcasses from Chile during the calendar year 1909 were 201,486, as compared with 76,121 in 1908. As shown by the figures for 1909, the sheep-raising industry in Chile is fast assuming large proportions.

The manufacturing interests enjoyed a good year, with an increased production.

The cement works at Calera, a small place a few miles inland from Valparaiso, which was opened with a yearly capacity of 200,000 barrels, is a very fine plant and manufactures a good grade of cement. The use of cement is increasing very rapidly in Chile of late, especially in and about Valparaiso.

The shoe and leather interests had a very good year. The manufacture of shoes by machinery is increasing rapidly in Chile. The first shoe factory employing machinery was opened at Valdivia, and now there are 22 well-equipped factories of various sizes located in different cities of the country. A large percentage of the shoe machinery in use is from the United States. France comes next, followed by England.

During the year work has been pushed on the steel plant being erected at Corral, near Valdivia, and so far completed that the first steel was turned out in the shape of ingots during February, 1910. The capacity of the plant is about 200 tons per day, and represents an investment of about \$3,000,000.

Industrial statistics published by the "Sociedad de Fomento Fabrial" show that in 1908 Chile had 4,758 industrial establishments operating with more than four workmen each, 965 of which were engaged in the hide, skin, and shoe industries, 866 in the food industries, 669 in the metal industries, 555 in the manufacture of garments, 439 in the wood industries and its manufactures, 209 in the paper and printing industries, and 204 in the preparation of alcoholic beverages. The capital employed in all these industries aggregates 339,092,971 pesos. The food supply industries have the most capital, 110,000,000 pesos. In the hide, skin, and shoe industry, capital to the amount of 40,000,000 pesos is employed; in alcoholic beverages, 28,000,000 pesos; in wood and its manufactures, 27,500,000 pesos; and in the garment industry, 20,000,000 pesos. These industries employ 67,355 workmen, 46,549 of which are men, 17,678 women, and 5,947 children. The average weekly salary of the male workers is 20 pesos; of the women 9.67 pesos; and of the children 7.79 pesos.

In 1908 these establishments produced merchandise to the value of 469,123,133 pesos, and employed raw material worth 257,122,644 pesos, of which 168,048,131 pesos represented raw material produced in the country, and 89,074,513 pesos that which was imported from abroad. In round numbers these factories produced merchandise valued at 470,000,000 pesos out of raw materials costing 257,000,000 pesos, or a net gain in wealth of 212,000,000 pesos.

RAILWAYS AND INTERIOR WATERWAYS.

At the end of 1909 there were in actual operation in Chile 3,611 kilometers (2,244 miles) of railway; under construction, 1,349 kilometers (838 miles); and projected, about 1,600 kilometers (1,000 miles). When all the work is finished, therefore, Chile will have a railway extension of something over 6,400 kilometers (4,000 miles), of which about 4,023 kilometers (2,500 miles) will be operated and owned by the Government.

The peculiar configuration of the country allows of a natural division of the system into that portion paralleling the coast, the terminals of which the Government hopes some time to locate at the north and south extremities of the land; and the several short lines running from the coast to the interior, either as simple carriers of local freight or as feeders to the trunk lines just mentioned. These railways from the coast to the interior (especially at the north of the Republic) are, as a rule, in the hands of private companies, while the longitudinal portions, and the necessary branches to connect such large ports as Valparaiso with the interior of the country, are owned and, to a large extent, operated by the Government.

The Chilean Government has energetically cooperated with the railway builders on the Argentine side of the Andes, and during

the year completed the western section of the Trans-Andine tunnel, so that, on the opening of traffic in April, 1910, through connection is made over the government lines from Valparaiso and Santiago to the Argentine Republic.

During 1909 work has been pushed on 18 different new railway lines for the Chilean government, at a total estimated cost of \$25,418,400. It is estimated that about 24 per cent of the work was done on these lines during the year.

The receipts from the 1,605 miles of Government railways in operation were \$9,080,991.90 for 1909, against \$8,652,210.64 for 1908. The increase was about equally divided between the passenger and freight service. The operating expenses exceeded the receipts, but at this date it is not possible to give the amount.

During the year much attention was given to the question of electrifying the government railway between Valparaiso and Santiago, a distance of 114 miles. It is proposed to complete the double tracking of this line (one-half of which is already finished) before equipping the line with electric power. An Italian company has offered to equip the line and take its pay out of the profits over the cost of the operation by the old method. It seems probable that this offer will be accepted before the close of 1910.

The contract awarded on May 1, 1909, to the London company of Sir JOHN JACKSON, for the completion of the railroad from Arica to La Paz, Bolivia, fixes the cost at £2,750,000, not including branch lines. The line is to be constructed in two sections—the Chilean, from Arica to the Bolivian frontier, at a cost of £1,645,000, and the Bolivian section, from the frontier to La Paz, at a cost of £1,105,000. It is stipulated that the Chilean section shall be completed in thirty months and the entire work in three years. The material required for the work and its exploitation are to be admitted free of duty both in Chile and Bolivia.

On February 1, 1909, bids for the construction of the section of the longitudinal railway between Cabildo and San Marcos, covering a distance of 205 kilometers (127 miles), were opened in the capital of the Republic and in the legations of Chile in Europe and the United States. The only bid received in Chile was that of a London company, the amount being £1,900,000, and the time required for the construction, three years.

On September 30, 1909, of the railways in construction in the Republic under the direction of the Government, 217 kilometers (135 miles) had a gauge of 1.68 meters, 909 kilometers (565 miles) a gauge of 1 meter, and 224 kilometers (139 miles) a gauge of 0.60 meter. The longitudinal railway represented 569 kilometers (354) miles of the total under construction, the branches to the Cordillera 585 kilometers (364 miles), and those to the coast 196 kilometers (122



MAP SHOWING RAILWAYS IN OPERATION AND PROJECTED LINES IN CHILE.

miles). The approximate cost of the 1,350 kilometers (839 miles), exclusive of the longitudinal and the Saboya to Capitan railways, amounts to 122,000,000 Chilean pesos (\$25,620,000 gold).

A British syndicate has received a contract from the Government for the construction of a railway to parallel the coast for a distance of about 717 kilometers (445 miles), running from Pueblo Hundido, about 450 miles north of Valparaiso, and ending at Lagunas, about 60 miles southeast of Iquique. The road is to be completed within four years at a cost of \$14,870,807 gold.

The Government has under construction 16 different railway lines and extensions, at a total cost of \$25,665,595, of which 8 are being built under contract at a cost of \$20,487,188.

There are a number of navigable rivers in Chile, among which the Bueno, Maule, Cautin, Bio-bio, and Valdivia are the most important, being navigable for distances varying from 23 to 150 miles, the total navigable length of the rivers being 972 miles.

MEANS OF APPROACH.

Owing to its Pacific coast line of 2,625 miles, every part of Chile can be easily reached by water, there being no less than 59 ports in the country, 14 of which are the so-called major ports, which are ports of entry with custom-houses, and upon which the minor ports are dependent. The major ports are Arica, Pisagua, Iquique, Tocopilla, Antofagasta, Taltal, Caldera, Carrizal Bajo, Coquimbo, Valparaiso, Talcahuano, Coronel, Valdivia, Puerto Montt, and Ancud. Punta Arenas, in the Straits of Magellan, is a free port, where merchandise may be imported and exported free of duty.

Chile can be reached from New York, European ports, and the Atlantic ports of the other South American Republics, by one of the several steamship companies maintaining through lines via the Straits of Magellan. It can also be reached from New York and Europe via Panama and the west coast, and from San Francisco and the ports of Mexico and Central America either by direct steamer or with transshipment at the Isthmus.

From Buenos Aires, regular passenger travel is now carried on through the recently opened Trans-Andine tunnel, and will be continuous throughout the year. Communication is thus maintained between Chile and all parts of the Argentine Republic.

To and from Bolivia, both passengers and freight are carried by rail between La Paz, the capital of that Republic, and Antofagasta, one of the large seaports in the north of Chile. Here vessels must be taken to reach any portion of the Republic to the south of it. The railway from Arica has not yet reached the Bolivian frontier, although active work is in progress. Peru, Ecuador, and Colombia are in con-

nection with Chile by means of the steamers plying between Panama and Valparaiso.

During the year 1909, 389 steamers and 19 sailing vessels touched at Valparaiso, discharging packages to the number of 1,195,541.

POSTS AND TELEGRAPHS.

Chile became a member of the International Postal Union in 1881. The postal system of the Republic, comprising in 1909 some 1,090 offices, distributes more than 100,000,000 letters, cards, and postal packages per annum. That the facilities for international trade created by the almost universal adoption of parcels-post conventions, are destined to play an important part in the world's commerce, is demonstrated by the fact that Chile in 1908 imported goods by parcels post to the value of \$989,720. Parcels-post packages to the number of 27,687 were received during 1909, as compared with 18,907 in 1908. It is apparent, then, that the value of such imports of merchandise from foreign countries in 1909 must have been in excess of \$1,000,000.

The telegraph system links together every part of the Republic, and comprised 359 offices and 16,767 miles of telegraph line in 1907. In 1909 the number of miles of telegraph lines was 17,388.

The sum of £50,000 was appropriated by Congress in 1909 to connect the Magallanes territory with the rest of the Republic by means of wireless telegraphy. The country for most of the distance is wild and rough, and the Government, after a careful study of the relative cost of the two systems of telegraph, has come to the conclusion that the wireless is the most practical. A wireless-telegraph station was opened during the year at Valparaiso; this has been thoroughly tested by the Chilean naval officers, a message having been received from a battle ship at a distance of 380 miles from shore. It is proposed to increase the strength of the station until it will have a radius of at least 800 miles.

EDUCATION.

Education in Chile, though not compulsory, is absolutely free. Within the last few years the Chilean Government has given considerable attention to public instruction, and has been gradually extending the school system all over the country, until now there are 2,215 elementary schools with 4,729 teachers, and an attendance of about 172,000 pupils. Besides these there are 118 private schools for elementary instruction subsidized by the Government.

Secondary instruction is provided in the National Institute at Santiago and in the various lycees, of which there is one in every provincial capital and in every city or town of any importance. In 1907 there were 39 of these institutions for men and 30 for women.

Higher education is provided in the National University at Santiago and at the various normal schools, of which there are 15 in Chile, 6 for men and 9 for women.

Industrial, commercial, and agricultural instruction is provided by the Government in special schools, also gratuitously, and by the various societies, as the *Sociedad Nacional de Agricultura* (National Society of Agriculture), the *Sociedad de Fomento Fabril* (Society for the Improvement of Industries), and the *Sociedad Nacional de Minería* (National Society of Mining), all of which maintain schools in various Provinces and receive subsidies from the Government for that purpose.

Commercial schools are maintained in Iquique, Antofagasta, Valparaíso, Santiago, and Concepción, as also at Vallenar, Coquimbo, Talca, and San Carlos.

There are 17 industrial schools in Chile under the direction of the *Sociedad de Fomento Fabril*, which cover all lines of industry, and in which there are also divisions for the preparation of engineers, electricians, architects, gasfitters, plumbers, carpenters, masons, etc. During 1909 there were 3,649 students in these schools, against 3,300 for 1908.

Practical schools of agriculture are maintained at Concepción, Santiago, Talca, San Fernando, Elqui, and Salamanca. These schools are under the supervision of the *Sociedad Nacional de Agricultura*, and the Government contributes liberally toward the maintenance of the same. The Agricultural Institute and the Industrial Agricultural School at Chillán are other establishments for practical agricultural instruction, and besides these the Government maintains a number of model farms and contributes largely toward the expenses of maintaining the *Quinta Normal* at Santiago, in which are situated a museum, a zoological garden, and a number of experimental stations for the cultivation of trees, vines, etc., and in which is also situated the National Agricultural Institute, with professors of rural economy, arboriculture, viticulture and vinification, agricultural chemistry, rural legislation, and a veterinary school.

At Copiapo there is a practical school for mining, and at Santiago and La Serena are schools for practical instruction to mining engineers and miners.

Military instruction is obtained at the Military Academy and 4 military schools, while the Naval Academy and 4 schools provide instruction for those wishing to join the Navy.

Besides the National University, which has faculties for law and political science, medicine, dentistry, physics, and mathematics, there is the Catholic University, which has faculties for law, civil engineering, architecture, and agriculture. Other institutes are the National Conservatory of Music, the School of Fine Arts, the National

Observatory, the Institute for the Deaf and Dumb, and the School for the Blind.

A number of public libraries are established in various cities, among which the national library at Santiago and the public library at Valparaiso are the most important. The library of the National Institute, the library of Congress, the library of the Department of Statistics, and the library of the Navy are also of considerable importance.

Among the museums the national museum at Santiago is the most important. Other museums are the Military Museum, the Museum of Fine Arts, both at Santiago, the Museum of Natural History, at Valparaiso, and the museum at Concepcion.

The *Sociedades de Fomento Fabril, de Agricultura* and *de Minería*, mentioned above, from time to time hold expositions, in which they exhibit the products of the soil and manufactories, as well as the latest processes and appliances, and the Government contributes liberally toward defraying the expenses of these expositions. These societies are formed by a large number of the most prominent Chileans, who devote considerable time and energy to the development and improvement of the manufacturing industries, agriculture, and mining, and who assist the Government in its endeavor to bring about a better development of the natural resources of Chile. These societies, in addition to maintaining practical schools of instruction, experimental farms, expositions, etc., also publish a monthly bulletin containing valuable information and hints for the farmer, merchant, manufacturer, etc.

In Chile there are published some 400 papers and periodicals, daily, weekly, biweekly, and monthly, some of which, especially the large newspapers of Santiago and Valparaiso, are thoroughly modern and up to date, having an excellent telegraphic news service.

There are also some forty literary and scientific societies in Chile, which from time to time give public lectures on different subjects.

GENERAL INFORMATION.

Chile has done much to improve the sanitary conditions of its people during 1909. Many new water-supply and sewer systems have either been installed or are now being constructed. New hospitals have been provided, including one at Valparaiso expressly for tuberculosis patients, and careful attention has been given the disease of bubonic plague.

The *Compañía Alemana de Electricidad* completed at the close of 1909 the installation of an extensive hydraulic electric power plant on the Maipo River near Santiago at a cost of about \$3,000,000, with a force of 4,000 horsepower. This power plant will light the city and furnish power for such industries as may require it.

The Government has granted another German company a concession to install a hydraulic electric power plant on the Aconcagua River in the vicinity of Los Andes, where ample power can be generated to supply power to run the Government railways between Valparaiso and Santiago, a distance of 114 miles, and to light the towns and cities along the way.

During 1909 the Chilean Government expended \$42,978.20 for surveys and making estimates covering several water-power sites. Much is expected in the development of the water powers of the country as a result of this work.

During 1909 harbor improvements were made at Talcahuano and Mejillones. The former is the naval station for the Chilean fleet.

A general scheme is under consideration by the Government, which is to provide for the improvement of several of the Chilean ports at a total cost of about \$40,000,000, of which the port of Valparaiso is the most important, with an estimated cost of \$20,000,000. Soundings have been taken by the Government engineers during the past year preparatory to letting the contract for the work.

The Government has changed its plans for the construction of harbor works at Concepcion and instead has selected the Maule River. The cost of the work is estimated at 6,000,000 pesos, of which 3,500,000 pesos will be expended on the north mole, 400,000 pesos on the south mole, and 2,100,000 pesos on a 10-meter breakwater, for dredging embankment works, buildings, apparatus, roads, and other necessary constructions.

The estimated cost of the construction of the proposed improvements to the Valdivia River and the port of Corral in Chile is 10,000,000 pesos gold. The channel is to have a depth of 7 meters, and the capacity of the port of Corral will be great enough to accommodate 20 large war vessels.

A second graving dock is to be constructed by the Government of Chile at Talcahuano at an estimated cost of £954,022. Five years are allowed in which to complete the contract, which includes, besides the graving dock, an embankment running parallel to the Marianao breakwater, a protecting wall to form a tidal basin for destroyers between the new dock and the existing one, and the erection of a floating crane of 150 tons capacity, which may be used by the contractors during the progress of the work. Two electric cranes of capacities of 4 and 10 tons, respectively, are also to be provided.

During 1909, immigrants to the number of 3,598 arrived in Chile against 6,024 for 1908, and 8,462 for 1907. A very large proportion of these for 1909 were from Spain and Italy. An effort will be made to increase immigration during 1910, since the need of more workmen for the farms and shops is recognized, if advancement is to continue and the great natural resources of the country be developed in accord with present plans.

The Chilean Government in 1909 ratified the sanitary convention signed by its representative at the Washington conference of 1905.

The Government has negotiated with London bankers a loan of £3,000,000, with interest at the rate of 5 per cent per annum, £1,100,000 of which is to be used for the improvement of the port works at Valparaiso, and the remainder for railway construction and equipment.

As proposed in the irrigation bill now under the consideration of a parliamentary commission, 5,000,000 pesos are to be expended. Among the works to be undertaken are the Laja Canal, issuing from the river of the same name, to cost 1,000,200 pesos, to irrigate 30,000 hectares, thereby augmenting the value of the irrigated area fourfold and increasing the public resources by 9,000,000 pesos; damming of the Zeno lagoons at an expense of 500,000 pesos; irrigation of Nilahue, in the Department of Vichuquen, at an expenditure of 6,000,000 pesos, whereby 30,000 hectares will be benefited, the value of the section be increased sixfold, and public resources augmented by 15,000,000 pesos; extension of the Melpilla Canal by 120 kilometers, increasing the value of the area irrigated fourfold and adding 12,000,000 pesos to public resources; irrigating the *Ulanos* of La Chimba, in the Department of Ovalle, whereby 10,000 hectares will be treated at a cost of 3,000,000 pesos, and increasing the value of each hectare by 500 pesos.

During the past year the Chilean Government formally ratified the convention relative to the practice of liberal professions, as signed by the delegates to the Second International American Conference on January 28, 1902.

The Chilean Congress has voted an appropriation of 300,000 pesos to be used in the celebration of the International Agricultural and Industrial Exposition, in honor of the centennial of Chilean independence, which will be opened in Santiago, the capital of the Republic, on September 18, 1910. The government park at Santiago will be used for exposition purposes. Provisions have been made for the entry of all foreign exhibits in bond. One important feature of the celebration will be the Exposition of Fine Arts to be held in the Palace of Fine Arts in Santiago, recently erected by the Government of Chile as a permanent memorial in honor of the centenary of independence.

During the year an extradition treaty was celebrated between the Republics of Chile and Uruguay. The treaty will remain in force for ten years unless previously terminated by one year's notice of either of the parties in interest.

COLOMBIA

GEOGRAPHICAL SKETCH.

The Republic of Colombia, occupying the northwestern corner of South America, extends from latitude $2^{\circ} 40'$ south to $12^{\circ} 25'$ north, and from 68° to 79° west longitude, covering an area of 438,436 square miles, equal to that of the States of Louisiana, Texas, Kansas, and Arkansas, with a population of 4,320,000, equal to 10 inhabitants per square mile, or about one-third the population per square mile of the United States of America.

Three chains of mountains which cross the country produce a variety of climate and products, ranging from the temperate to the tropical. Coffee, cacao, sugar cane, tobacco, and bananas, are successfully grown and largely exported, and the extensive forests contain a number of valuable cabinet and other useful woods, and medicinal plants. Vegetable ivory and india rubber are other products of export, also "Panama" hats, in the manufacture of which the natives have acquired considerable skill. The mineral wealth of the country has been but little exploited, although its emerald mines furnish the world's chief supply of these gems. Gold is found in every Department. Silver, platinum, mercury, iron, lead, and coal are also to be found in the Republic. The output of platinum is only exceeded by that of Russia, and coal is very abundant, but has been little exploited commercially on account of the difficulty of transportation. The emerald and salt mines and the pearl fisheries are government monopolies.

HISTORICAL SKETCH.

When COLUMBUS, on his fourth and last voyage, had discovered Cape Gracias á Dios, on September 14, 1502, he sailed along the Colombian coast for a considerable distance, but did not make any attempt to settle the country or conquer the aborigines. It was left for ALONSO DE OJEDA, who in the year 1508 was granted the land lying east of the river Darien, which was termed the Province of Uraba, to attempt the conquest of the country. OJEDA succeeded in establishing himself firmly along the coast, battling continually with the Indians; but all of his attempts to conquer the Chibcha Kingdom, situated on the high plateau, were fruitless. In the year 1536 JIMENEZ DE QUESADA undertook the subjugation of the Chibchas and at the same time two other expeditions, for the same purpose, started from other points, that of FREDERMAN and of PIZARRO's first lieutenant, BENALCAZAR. These three expeditions met on the plateau,

and it was due only to the tact and diplomacy of QUESADA that strife was avoided. Having succeeded in this, he established friendly relations with the aborigines, a highly civilized people, similar to the Incas of Peru. He established his capital, the present city of Bogota, at the site of the old Chibcha capital and explored the country in all directions.

A Governor-General was appointed by Spain and the name changed to the Province of New Granada, and in the year 1718 it was made a viceroyalty. The first viceroy was ANTONIO DE LA PEDROSA Y GUERRERO, and New Granada was successively governed by twelve viceroys until in the year 1810, the last, Don ANTONIO AYNAR Y BORBON, was deposed by the citizens of Bogota. Revolutionary movements had previously been initiated in various parts of the country, but the war against Spain took definite form in July of that year.

A long and bitter struggle ensued which lasted for nearly nine years, ending in the year 1819, when, on August 7, the patriots under the able leadership of Gen. SIMON BOLIVAR utterly defeated the royalist forces at Boyaca.

BOLIVAR succeeded in effecting a union between Venezuela and the former viceroyalty of New Granada, and on the 17th of December, 1819, the new Republic formally adopted the title of the Republic of Colombia. On July 12, 1821, a constituent congress met at Cucuta and elected SIMON BOLIVAR as the first President of the "Greater Colombia." The "Intendencia de Quito," now the Republic of Ecuador, joined the union in the year 1829, but when, on December 17, 1830, BOLIVAR died, the union was dissolved, and New Granada adopted the title of the Republic of New Granada on November 17, 1831. This title was subsequently changed to that of the Granadine Confederation, later to that of the United States of Colombia, and lastly to the Republic of Colombia. The change of name indicates the various phases of the development of the country, Colombia having finally resolved to adopt the unitary republican form of government, which experience has taught it to be the best fitted for the country.

On August 3, 1909, Gen. RAMÓN GONZÁLEZ-VALENCIA was designated by the Congress to serve as President for one year in place of Gen. RAFAEL REYES, who had resigned. On July 15, 1910, Sr. Don CARLOS E. RESTREPO was duly elected President by the Congress.

CONSTITUTION AND GOVERNMENT.

By the constitution adopted August 4, 1886, the Republic of Colombia abolished the Federal Union and the sovereignty of the several States and adopted the unitary republican form of Government, with legislative, executive, and judicial branches.

The Senate and the House of Representatives, constituting the National Congress, are intrusted with the legislative power, the former chamber consisting of 3 Members for each department, and the latter of a varying number of Members, 1 for every 50,000 inhabitants. Senators are elected indirectly by electors chosen for the purpose for a term of four years, and Representatives are elected by direct vote of the people for the same term.

The President is elected by the Congress for a term of four years. He is assisted by six Ministers or Secretaries of State, in charge of the Departments of the Interior, Foreign Affairs, Finance, War, Public Instruction, and Public Works, respectively. The salary of the President is \$12,000 gold per annum and that of members of his Cabinet \$6,000 each.

The Judiciary comprises one supreme court, located at Bogotá, a superior tribunal for each Department, and a number of minor courts. The Supreme Court is composed of 7 members, appointed by the President of the Republic for a term of five years, while the justices of the superior courts are appointed for a term of four years.

INTERIOR GOVERNMENT.

The Republic is divided for administrative purposes into nine Departments, which are again divided into provinces, and these into municipal districts. In the Departments executive authority is vested in a governor appointed by the President of the Republic, and legislative authority in a departmental assembly elected by popular vote at the rate of 1 deputy for every 12,000 inhabitants. The provincial and district executive authorities are likewise appointed by the President, but municipal councils are elected by direct vote of the people.

Under Decree No. 340 of 1910, issued on April 16, 1910, the political divisions of the Republic are given as follows:

Department.	Capital.	Department.	Capital.
Antioquia.....	Medellin.	Magdalena.....	Santa Marta.
Bolívar.....	Cartagena.	Nariño.....	Pasto.
Boyacá.....	Tunja.	Panama*	Panama.
Caldas.....	Manizales.	Santander.....	Bucaramanga.
Cauca.....	Popayan.	Tolima.....	Ibaguë.
Cundinamarca.....	Bogotá.	Valle.....	Cali.
Huila.....	Neiva.		

Bogotá, the capital of Colombia, has about 150,000 inhabitants. Other large cities and their population are: Barranquilla, 40,000; Medellín, 50,000; Cartagena, 27,000; Bucaramanga, 30,000.

ARMY AND NAVY.

The Colombian national army has three branches; that is, infantry, cavalry, and artillery. The infantry is subdivided into corps, divisions, brigades, battalions, and companies. Two divisions form

* Language of the decree.

a corps, two brigades a division, two or more battalions a brigade, six companies of 100 men each a battalion. Regiments of cavalry are composed of two or three company squadrons, and the artillery forces are organized into batteries and sections. Military service is compulsory. The strength of the permanent army is fixed annually by act of Congress. In 1909 the number fixed by law was 6,528 officers and men. The war strength is estimated at 120,000 men.

The Colombian navy comprises 5 cruisers, 3 gunboats, 1 troop ship, and other auxiliary vessels.

COLOMBIA IN 1909.

In several directions Colombia has made decided steps toward recovering from the financial depression of past years, and, as in 1908, has shown a balance of trade in its favor. The imports, however, fell below those of the preceding year, while the exports went ahead of those of 1908.

The Government is making a sincere effort to maintain the value of its money on a normal basis, and has been, especially during the last four months of the year, eminently successful. The whole strength of the Government was given, also, to reforms in many of its financial processes, and economy was exercised in the administration of its funds. Especial attention was given to both internal improvements and the postal service.

The fact that exports increased can be taken as a proof that agriculturally the country was prosperous, because, although the land is extraordinarily rich in minerals, it still depends upon agriculture as its principal source of income. The products of the tropical zone have recently been more actively exploited, but there are undoubtedly great areas which, when once opened to commerce, will be able to provide temperate products such as the grains and fruits, not only for home consumption, but also for a noticeable factor in foreign shipments. It should be remarked also that considerable iron and steel manufactures were imported to meet the demands of the increasing industrial life of the country.

The most noticeable railway achievement during the year was the establishment of both freight and passenger service between Girardot and Bogota. This is the successful culmination of a prolonged effort to overcome the isolation of the capital, which was reached up to this time only by a difficult passage on mule back over the mountains. It brings Bogota several days nearer the rest of the world than heretofore. The other railways extended their lines, but the objective point to which each is projected has not yet been reached.

FINANCE.

On April 7, 1909, an administrative decree was issued to the effect that the internal revenue from liquors, slaughtered cattle, and registry of documents be placed at the disposition of the several departments in which the revenue is collected, instead of being payable to the national treasury. The effect of this law would do away with the monopolies in Colombia and which have had a most peculiar effect upon trade, without affording the financial relief to the Government that was expected in the creation of the law. The repeal of these monopolies has already had a most beneficial effect on the internal trade and industry of the country and promises considerable relief to the federal treasury.

In a message addressed to the National Congress in July, 1909, by President HOLQUIN, a frank exposé of the financial difficulties of the country was made. These difficulties result from the more or less stagnant condition of trade and industry, due to internal troubles, the country not yet recovering from the three years' war, and to the use of paper currency.

For a number of years the Colombian Government has endeavored, with some success, to maintain the value of this currency as compared with gold at a ratio of 1 to 100. The cancellation by destruction of fixed amounts of currency as agreed on, has been fairly successful in maintaining this commercial ratio.

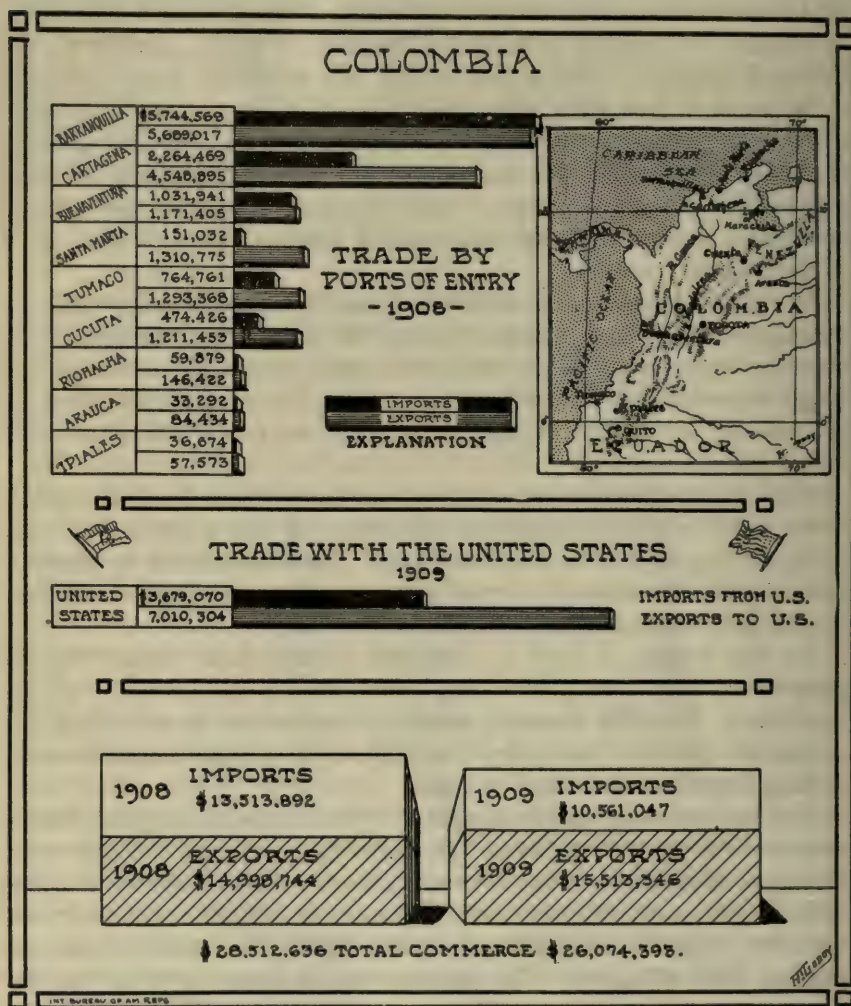
By the decree of July 9, 1909, the budget was revised for the purpose of introducing sweeping economies in all branches of the legislature. At this time the result of the decree in abolishing the monopolies had not been very favorable to the production of revenue, although most stimulating to trade.

The liquidation of the budget made by the decree of July 9 estimates the revenue at \$17,223,818. The principal items of revenue were: Customs, \$6,500,000; liquor revenue, \$2,100,000; slaughter tax and tax on hides, \$1,450,000; salt revenue, \$1,100,000; property tax, \$997,995; tobacco, \$750,000; cigarettes, \$520,000; emerald mines and mining dues, \$700,000. The principal expenditures were in the Departments of Finance and Treasury, \$6,962,858; War, \$2,731,151; Internal Improvements, \$1,638,282; Posts and Telegraphs, \$1,377,714, and National Debt, \$992,305.

COMMERCE.

The value of Colombian foreign trade for the year 1909 was \$26,074,393. The imports were \$10,561,047, and the exports were \$15,513,346. The balance of trade in favor of the Republic was therefore \$4,952,300. The figures show a decrease in the foreign trade, as compared with the year 1908, of \$2,438,243. There was an increase in the exports of a little over one-half million dollars, but

the decrease in the imports, amounting to nearly \$3,000,000, accounts for the total decrease mentioned. The figures for the year 1908 were: Imports, \$13,513,892; exports, \$14,998,744; total, \$28,512,636.



The trade by ports of entry was as follows:

Port.	Imports.	Exports.
Arauca.....	\$33,292.44	\$84,434.96
Barranquilla.....	5,744,569.82	5,689,017.37
Buenaventura.....	1,031,941.00	1,171,405.00
Cartagena.....	2,264,469.52	4,548,895.75
Cucuta.....	474,426.09	1,211,453.90
Ipiates.....	36,674.25	57,573.40
Riohacha.....	59,879.90	146,422.06
Santa Marta.....	151,032.64	1,310,775.63
Tumaco.....	764,761.04	1,293,368.16
Total.....	10,561,046.70	15,513,346.23

According to the United States statistics for the year ending June 30, 1909, the exports to Colombia were \$3,679,070, and the imports were \$7,010,304. The principal exports from the United States into Colombia were:

Manufactures of iron and steel.....	\$967,040
Manufactures of cotton.....	823,216
Breadstuffs	311,932
Lard.....	140,434
Patent and proprietary medicines.....	125,365
Illuminating oils.....	86,431

Under the head of iron and steel manufactures were: Steam engines and parts, \$128,113; sewing machines, \$72,389; other machines and machinery, \$241,323; wire, \$113,309.

Under cotton manufactures the principal item was cloths, colored, \$612,060, and uncolored, \$151,688.

Under breadstuffs the principal item was white flour, \$182,237.

The principal exports to the United States from Colombia were coffee, valued at \$4,832,386; hides and skins to the amount of \$633,131; bananas, \$362,248; rubber, \$258,999; and vegetable ivory, \$22,474, were also exported to the same country.

Coffee, cattle, hides, rubber, tobacco, ivory nuts, and mineral products compose the bulk of the country's exports. Of the coffee exports of the Republic about 67 per cent goes to the United States, most of the tobacco to Germany, and the cotton to Liverpool or Havre. The principal imports are flour, lard, petroleum, and cotton goods from the United States; sugar, rice, and potatoes from Germany; and cotton textiles from Great Britain.

INDUSTRIES.

Many measures are under consideration by the Government for the development of the natural sources of wealth. The value of the country as a producer of cacao, rubber, and bananas is well established, and cotton growing has been the subject of favorable experiments. The cultivation of bananas, wheat, and maize is regarded as more desirable at the present time, as quicker returns are yielded than from coffee, sugar, etc. Railways are much needed for the opening up of new and fertile regions, while the mineral resources of the country are well worth exploitation. For the purpose of aiding national enterprises, modifications have been made in the customs tariff on articles for railway construction, mills, agriculture, etc., all of which have been placed on the free list. Reduction in duties has been effected on other articles of common consumption.

Colombia, with its tropical and temperate climatic zones, should be able to vie with any country in the nature of its products. Its cacao is equal to that of Ecuador, its rubber compares favorably

with that of Brazil, and the native banana is unsurpassed by those of any other land. Tariff protection afforded by the Government to manufactures of the native cotton have greatly stimulated both the culture and the working of the product.

The coasts and hot regions produce corn, sugar cane, sea island cotton, rubber, cacao, bananas, fibers, tropical fruits, and vegetables, while the mountains and uplands yield coffee, apples, peaches, potatoes, wheat, barley, and all of the products of the Temperate Zone. The entire country is suitable for stock raising, the pastures in many sections remaining green the year round. Few countries contain the latent wealth and favorable conditions for developing it to such a degree as does the Republic of Colombia.

As regards banana cultivation, the lands between the Santa Marta and the Fundacion rivers, which are connected by 90 miles of railroad, are of particular fertility, and the Government is preparing to develop them through an extensive system of irrigation. It is also granting tracts of valuable land suitable for growing this important food plant.

The town of Santa Marta is situated east of Santa Marta Bay on the Caribbean coast, and is the northern terminus of the Santa Marta Railway, which runs southward for 58 miles over a coastal plain, through the great banana-raising region of Colombia. During one year this road carried over 50,000 tons of bananas alone. At present the commercial importance of Santa Marta depends almost entirely upon its large and increasing shipments of this fruit to the United States.

The first shipment of bananas was made in 1891, and for thirteen years the amount exported did not reach 500,000 bunches in any one year. In 1904 there were exported 787,244 bunches, and in 1908 the number reached 2,241,580. It is estimated that within four or five years not less than 5,000,000 bunches of bananas will be exported annually.

On the Magdalena, which is navigable by means of river craft for 900 miles, an adequate labor supply is obtainable for large plantations of bananas as well as of cacao and rubber, and with a sufficient population the Santa Marta district could within three years increase its production tenfold. The valleys of the rivers Leon and Atrato have long been recognized as having proper characteristics for the cultivation of this fruit. On the Sinu River there is also much good banana land, as well as an area suited to the cultivation of oranges, pineapples, alligator pears, and many other tropical products. This is the great cattle belt, as it is also the source of the cedar and mahogany exported from Colombia. In this valley are both coal and petroleum awaiting capital for their development.

A textile plant of commercial value has been discovered in the Colombian forests of Carare by JOSÉ MARIA LINDO, a naturalist of Bogota. The plant has been assigned to the family Bromiliaceous and is said to furnish a fiber especially suitable for use in the manufacture of curtains and other textiles for household adornment.

The Minister of Public Works, on behalf of the Republic of Colombia, has entered into a contract with a representative of the French Company of the Sinu River, for the exploitation of certain portions of the public domain for rubber and hard woods. The contract is made without prejudice to the right of the Government to make similar grants to other parties, and carries with it the right of navigation, under the existing laws, of the waterways of the Republic.

The coffee crop of the Republic yields annually about 600,000 bags. About 25,000 bags are retained for home consumption, the remainder going to the United States and Europe, and meeting with increased favor in those markets. The principal coffee districts are the Department of Cundinamarca, which produces the renowned Bogota brand; the Department of Santander in the Ocana, Cucuta, and Bucaramanga districts, and in the Tolima and smaller valleys of the Cordilleras.

United States capitalists are showing considerable interest in the exploitation of rubber; in the operation of gold, silver, platinum, and other mines; and in the development of the agricultural resources of the Republic. Other capitalists are becoming interested in the Republic, and especially in the forest, mining, and agricultural resources of the Department of Magdalena, where bodies of most excellent timber, Spanish cedar, and mahogany of the finest quality and other valuable trees of beautiful grain have been discovered, much of which is of easy access by the Magdalena River.

The new mining code and law relating to public lands are prominent factors in the stimulation of the activities along the lines indicated.

In some Departments, notably Antioquia, the mineral industry is well established, while the Marmato and Rio Sucio gold deposits are said to be equal to those of the Transvaal. A French company has been organized for the exploitation of the surface veins of Alta, Baja, and Vetas in the Department of Santander.

The Choco district is of recognized importance, and at present native and foreign companies are engaged in the development of the region. It is said that the entire Pacific coast of Colombia has been formed by gold-bearing alluvial, so that with more effective development a great mining center will be established. Near Tuquerres and Samaniego, in the Department of Nariño, gold deposits are being profitably worked, while in the Central Cordillera region exploitation

has scarcely begun. Abundant deposits of coal, iron, copper, lead, and cinnabar are known to exist on both slopes, so that Colombia may be regarded as a rich storehouse of minerals, as well as an area of immense agricultural and pastoral resources.

The great gold-bearing region is found in the lofty cordilleras of the Choco and Antioquia provinces and in the mountain ranges that separate the Cauca and Magdalena rivers. In this large area of many thousands of square miles, wherever there is gravel there is gold, and back in the mountains, where the rock has been laid bare, veins are found everywhere. These veins contain treasures of gold that can be extracted by the systematic use of modern machinery and methods. Many hundreds of miles of this rich territory have never been explored except by the Indian hunter.

Recent gold discoveries near Neiva, on the upper Magdalena River, have opened up a new section of the gold belt. It is known that the Department of Nariño, bordering on the Ecuador line, is rich in gold. Gold nuggets are found in the gravel beds of all the rivers of this section flowing into the Pacific Ocean.

The development of the quartz mining depends almost entirely upon transportation. The extension of the Dorado Railroad and the Tolima Railroad will facilitate transport to some of the mines of the eastern slopes of the gold belt of the Republic.

Discoveries have been made of rich gold-bearing quartz on the headwaters of the Andagueda and Chirvigo rivers, distant about 125 miles from Quibdo.

The copper ores are very abundant in Colombia, but owing to the richness of the country in gold and silver little attention has been paid to the commoner metals. When the value of the Colombian copper deposits becomes better known and appreciated, Colombia will without doubt rank as one of the greatest copper producing countries of the world. Copper ores are found in Ocaña and Velez, in the Department of Santander, in Moniguica and Santa Rosa, in the Department of Boyaca, and in the Department of Antioquia. One of the most interesting copper mining districts is that of Natagaima, favorably located near the Magdalena River some 750 miles from the sea, which is navigable the entire distance with the exception of a short stretch of rapids, where the traffic must go by train until water of the proper depth is again encountered. The low mountainous range along this river contains a number of copper deposits, and it has been estimated by competent engineers that the copper could be mined and smelted at from £20 to £30 sterling per ton.

Russia is the only country whose platinum output exceeds that of Colombia. This metal, which is always found mixed with gold, comes from the gravels of the Choco, its main source being the Pla-

tina and Condoto rivers, which are tributary to the San Juan River. It is also obtained from some of the streams that flow into the Atrato River.

Government returns covering platinum exploitation have not been published for a more recent period than 1905, but from records in the Bureau of Statistics of Bogota the total yield during 1907 amounted to about 245 ounces. There is undoubtedly a great future for this branch of mining industry in the Republic, and concessions recently granted foreshadow the intention to exploit it as a source of national wealth.

The emerald mines of Colombia are among the most valuable properties within the Republic. At the time of the Spanish conquest the Muzo and other deposits were well known to the Indians, and the stones from Colombian mines have always been unequaled in richness of color and brilliancy. The Colombian gems exhibit in the highest degree the qualities of color, brilliancy, flawlessness, and size characteristic of the best emeralds, and the Muzo district is at present the principal source of supply. The production is under control of the Government, and these mines have recently been leased to an English syndicate, which agrees to sell at least \$1,250,000 worth of stones each year for twenty years. The lease in the original call for bids was valued at \$360,000 annually. The sales are to be under government inspection, and competition is practically impossible by reason of legislation forbidding the sale of uncut stones and the imposition of taxes on privately worked mines.

This lease will justify the installation of labor-saving machinery and improving the water supply with a view to securing a more uniform output, which improvements would not be profitable under a shorter lease.

According to the latest report, for the year 1907, the government receipts from the Muzo and Cosquez mines amounted to \$371,301.10. The Muzo mines are situated about 75 miles north of Bogota, in the Department of Boyaca, and have an area of 140,000 acres, of which only about 50 acres have been worked in the last twenty-five years. Close by is the Cosquez group, though at a somewhat greater elevation, covering an area of nearly 5,000 acres. It is from these mines that the Spaniards obtained many of their gems, but the exact location of the valuable deposits has been lost. The Cuincha mines are about 6 miles southeast from the Muzo group and about 78 miles north of Bogota, covering an area of 1,100 acres. This group has been favorably reported on, but not yet worked. The Somondoco group consists of five separate mines about 80 miles northeast of Bogota and situated at an elevation of 6,500 feet above sea level.

Coal is found nearly everywhere in the Cordilleras, lignite on the coasts, and coking and steam coal in the interior. Valuable deposits

have recently been discovered between the Atrato and Leon rivers; in short, the Colombian coal fields are well located to take advantage of the market facilities which will become available with the completion of the Panama Canal. In the absence of definite statistics it is impossible to give even an approximate computation of the country's coal deposits, which form a valuable asset as yet almost untouched and very little explored, the mines which have been opened being worked only in a superficial way.

The petroleum deposits of Colombia resemble those of the Beaumont (Tex.) oil fields. Without doubt this section is an extension of the coal and oil belt heretofore known to exist, reaching from near Cartagena to the valley of the Sinu River. A concession has been granted for a term of thirty years for the development of the petroleum fields and for the operation of oil-refining works in a specified section of the Department of Santander, included within an area 100 miles in length by 60 miles in width. The concessionaires agree to invest in one or more refineries within a period of five years all the capital which may be necessary for effective working, and during that period the Government agrees to admit, duty free, all necessary materials. Arrangements have been made for the erection of an oil refinery and warehouse in the city of Cartagena, and the elaboration and sale of petroleum, gasoline, benzine, paraffin, grease, and oil. The plans for the new plant include a refinery, a warehouse with a capacity of 25,000 cases, and quarters for employees.

Iron ores are abundant in the Republic, while the Departments of Antioquia, Cauca, Tolima, Boyaca, and Cundinamarca contain veins of copper ore. Much of this ore is of high grade, but owing to lack of transportation facilities the deposits, except in rare instances, remain unworked. Shipments of high-grade asphalt are also made from Santander.

At Zipaquirá, near Bogotá, and in the hills bordering the Ubia River, there are large deposits of rock salt. The Government holds a monopoly on salt mining, the net revenues to the Government from the Zipaquirá mines alone for 1908 being \$375,554. The salt obtained from sea water is under the administration of the Central Bank, which receives 5 per cent of the net receipts.

During 1908 the output of the Galera Zamba works amounted to 98,000 bags of 62½ kilograms each, worth \$382,000, while those of Magdalena, Santa Marta, and Rio Hacha yielded about 120,000 bags, valued at \$480,000, a total valuation of \$862,000, the net returns to the government revenues exceeding one-half of the gross amount. None of the salt produced in the country is refined or ground, being sold in crude form to retailers, some of whom have it ground for table use; but a small quantity of it is shipped abroad. Duties designed to protect the native product have been levied at various times.

The development of manufacturing industries is the object of government interest, and concessions have been granted for the installation of flour and sugar mills, textile and other factories—in many cases the necessary machinery and implements being admitted into the country free of duty. The flour milling industry is new to the Caribbean coast country, where formerly practically all the wheat flour used was imported from the United States, but in the uplands of the interior, where wheat can be successfully grown, the industry has flourished for some time. American machinery, once tried in the mills there, has competed so successfully with that of other countries as to establish to the satisfaction of millers in Colombia its superiority over all others, with the result that machinery from other countries is now rarely seen in the mills of the Republic. The milling industry in Colombia seems a most remunerative one, yet the flour supply in the coast country never equals the demand, and though the establishment of new flouring mills should eventually care for the entire local market, at present large amounts of American flour are being imported.

At Sincerin a sugar factory has been grinding the cane from 3,000 acres, the first harvest of which produced 12,000 metric tons, or 265,000 bags of sugar. The establishment of other factories of this character await only the development of transportation facilities.

The principal industries of the thriving town of Medellin, Colombia, are the textile, glass, earthenware, match, and hat factories and iron foundries.

The textile industry is the most important. One of the mills, which has been in operation about five years, engages extensively in spinning and weaving. This mill has over 200 looms at work and in process of installation, and manufactures domestics, drills, and calicoes, for the entire output of which a good market is found. About a year ago another company opened its factory with 30 looms working and 50 more ordered. This company as yet does no weaving, but produces cotton goods of various grades and makes hosiery and underwear. Another company weaves by hand, manufacturing fabrics of coarse cotton, of wool, and of a native fiber called "cabuya."

Some of the iron foundries use material obtained in the vicinity and some import the raw product. Hats are exported in considerable quantities.

It is the desire of the Colombian Government that the growers and producers of cane sugar should interest themselves in the manufacture of this product, and with this end in view they will be given the preference in the subscription to stock in the company to be organized in connection with the concession.

RAILWAYS AND INTERIOR WATERWAYS.

The length of the railways in operation in the Republic is given at 821 kilometers (510 miles). In addition to this, there are about 100 kilometers (62 miles) in actual construction. The following table shows the railways in actual operation at the end of 1909:

	Kilos.
Ferrocarril de Barranquilla.....	15
Ferrocarril de Santa Marta.....	42
Ferrocarril de Cartagena.....	105
Ferrocarril de Cucuta.....	55
Ferrocarril de Puerto Wilches.....	30
Ferrocarril de Antioquia.....	109
Ferrocarril de La Dorado.....	113
Ferrocarril del Norte.....	50
Ferrocarril de Girardot.....	132
Ferrocarril de la Sabana.....	40
Ferrocarril del Sur.....	29
Ferrocarril del Tolima.....	15
Ferrocarril del Pacifico.....	86

A glance at the accompanying map shows that there is as yet no continuous system within the Republic, but that there are many short lines at present engaged chiefly in local traffic, which, when their plans are fully carried out, will connect the coast on both the Atlantic and Pacific sides with the centers of production. It should be noticed, also, that the railway tapping the valleys of the Atrato and Cauca rivers will, at some future date, form a part of the Pan-American railway.

In February, 1909, the Girardot Railway joined the Sabana Railway at Facativá, thus connecting Bogotá with Girardot, on the Magdalena River, and establishing a direct communication with the coast. The line was opened in September to freight and passenger service between the last two points. This road is, of course, of the utmost importance to Colombia as it connects the capital of the Republic with the coast; but another railway of considerable importance is the Pacific Railway, which will connect the port of Buenaventura, on the Pacific coast, with Cali. It is expected that in July, 1910, the line will be completed as far as Cali, whence it will be continued to Palmira, thus opening up the fertile valley of the Cauca.

During the year the Cauca Railway (that from Buenaventura inland), having been completed to kilometer 86 in 1908, was placed in service to kilometer 82 on July 20, 1909, with one mixed train twice a week. Work on the prolongation was suspended to determine the route, and later continued, being opened up to kilometer 103. This line, which is now being constructed by a native company, moved its terminal station from "Cisneros" to Caldas, a distance of about 25 kilometers. The importance of this prolongation is not so much in the distance but that it brings the terminal station,

Caldas, within six hours ride of Cali, the principal commercial city of the Cauca Valley.

The Antioquia Railway was prolonged 7 kilometers during the year, making a total of 109 kilometers, to the station "Cisneros."

The Great Northern Central Railway of Colombia ought to become one of the most important trunk lines in the states of South America. It is now constructing the first section of 154 kilometers (96 miles) of



MAP SHOWING THE RAILROADS IN OPERATION AND PROJECTED LINES IN COLOMBIA.

the railway from a favorably situated port (Puerto Wilches) to Bucaramanga—a great trading center already—Bogota being the final objective point of the railway. The surveys of the first section of 154 kilometers have been completed, and large quantities of rails, rolling stock, and other materials have been received. The Provinces to be served by the railway contain a population of some 2,500,000 people:

The Amaga Railway, the line to connect Medellin with the Cauca River at a point between the mouths of the Amaga and Paloblanco rivers, is reported to be under active construction. The road is the property of a Colombian company capitalized at \$1,000,000. The railway will serve a very fertile region and will be especially advantageous to coffee growers. During 1910 the company will place orders for 1,000 tons of rails of the Vignole pattern.

Colombia has a fine system of interior waterways, the most important of which is the Magdalena River, navigable by vessels of considerable draft for a distance of over 600 miles and by smaller craft 300 miles farther. The Cesar, the Cauca, the Nechi, the Lebrija, the Sogamoso, and some of the smaller tributaries are all navigable for various distances. The Atrato is navigable for 220 miles inland and the Sinu for 110 miles.

The city of Bogota is best reached via Puerto Colombia and Barranquilla, from which latter point a regular steamship and railroad service is maintained with Girardot, on the Magdalena River, whence there is railway connection by way of Facatativa to the capital.

During the last four years all means of communication in the Republic—railways, wagon roads, and navigation—have been notably improved and new highways extended in every direction. The most important of these is the road from Bogota to Soata, in the Department of Boyaca, which has been completed as far as Belen, a distance of 50 leagues from Bogota.

MEANS OF APPROACH.

The principal port of Colombia is Puerto Colombia, situated at the mouth of the Magdalena River and connected by rail with Barranquilla, 18 miles distant. Puerto Colombia is shown on the map as Sabanilla, or Savanilla, and is of itself no more than the landing place for passengers and merchandise, the town of Barranquilla being the real center of business activity, as well as the place of departure for the Magdalena River steamers.

Other ports on the Caribbean Sea are Cartagena, Santa Marta, and Rio Hacha. These may all be reached by steamers from New York, or by transshipment to coast steamers at Colon, Panama. They are ports of call, also, for several lines of steamers departing from the principal ports of Europe.

On the Pacific Ocean, Buenaventura and Tumaco are the most important ports. From the north they are reached by steamers from Panama; from the south by steamers serving the coast cities of Ecuador, Peru, and Chile. Two lines, an English and a German, have steamers from Europe, through the Straits of Magellan, which touch Colombian, as well as the other ports on the Pacific, on their way to

Panama. The German line continues along the west coast as far north as Seattle and Vancouver. There are regularly traveled roads between Bogota, the capital, and Venezuela, to the northeast, and Ecuador, to the south.

POSTS AND TELEGRAPHS.

The postal and telegraph services in Colombia are well organized and efficiently administered. In 1908 the Government separated the department of posts from that of telegraphs, in order to allow each to develop to such an extent as would meet all modern exigencies. There are in the Republic about 500 post-offices, operated by a staff of over 600 employees, who handle approximately 3,000,000 pieces of mail matter per annum. The parcels-post convention in force between the United States and Colombia is that of the International Postal Union.

The city of Bogota is connected by telegraph with Panama by a line which connects at Buenaventura with the submarine cable between that port and Panama. The telegraph service maintains offices in all parts of the Republic and is connected with the systems of the two adjoining countries, Venezuela and Ecuador.

There are now 524 telegraph offices and 10,676 miles of line in the Republic. This relates to the lines owned and operated by the Government and does not include the telegraph lines of the various railroads.

EDUCATION.

An officer in the cabinet has charge of public instruction. A great improvement is to be noted in the extent and efficiency of this branch of the Government, not only in the centers of population, but also in the rural districts, where numerous public schools have been established. Evening manual training schools are conducted in various parts of the country, and this system of public instruction is receiving the earnest support of the Government. The department having under its charge and supervision all of the normal schools that formerly existed has decreed the establishment of five new normal schools, and has founded a national school of commerce on the most modern and up-to-date basis.

An executive decree of January 16, 1908, made provision for elementary instruction in hygiene, physiology, and physical culture in the public schools of the country, to include colleges, manual training schools, and other institutions supported by the Government.

There were about 235,000 pupils in attendance at the public schools, which numbered 2,987 in 1909. It is the intention of the Government to investigate the school systems of other countries, more

especially the organization of primary schools, schools of commerce, and universities, for the purpose of improving those within the country. Already industrial night schools have been established in the principal centers of population, while intermediate and higher education is receiving the fostering care and attention of the Government.

A recent decree of the Colombian Government has established additional normal schools for males at Medellin, Manizales, and Ibagué, and for females at Neiva and San Gil.

Normal schools will be allowed a subvention of \$400 per month for the school year of ten months, which will be used to pay the expenses of as many poor students as possible, and the governors of the departments are to oversee the contracts made for the care and maintenance of these pupils. The decree provides for the establishment of a primary school in connection with the normal for practice in teaching.

The curriculum provided for these normal schools covers a wide range of studies. It includes religion and morals, civics, pedagogy, Spanish language (including grammar, rhetoric, ideology, orthography, composition, and punctuation), caligraphy, lineal drawing, arithmetic and mental calculus, geography, history, hygiene and deportment, principles of agriculture, gymnastics (military training for males and calisthenics for females), bookkeeping and commercial arithmetic for males; music and singing, especially the national hymn. Dramatic reading, esthetics, and recitation will be taught in the annexed school.

In the school for girls, manual training will be a branch of instruction, particularly cutting, fitting, and sewing; culinary art and domestic economy.

In the national and departmental schools a period of six years' study is required to receive the degree of doctor of medicine or surgery. Diplomas for the practice of homeopathic medicine are granted only to those holding certificates showing that they have passed the studies of the first year in the course of medicine, anatomy, physiology, and pathology. Pharmacists are required to furnish certificates from a medical faculty or proof of two years' practice in some well-known pharmaceutical establishment before a permit for the establishment of a pharmacy will be granted. Physicians, dentists, and surgeons holding the degree of doctor of medicine granted by foreign faculties of recognized competence may, without further examination, practice their respective professions, and foreigners not possessing the degree may obtain leave to practice by submitting themselves to an examination by the Faculty of Medicine of the University of Bogotá.

GENERAL INFORMATION.

A law recently enacted by the National Congress provides that 50 per cent of the revenues from the Muzo and Coscuez emerald mines, the income from the lease of the Santa Ana, Supía, and Marmato mines, the excess of public revenues over expenses, and 2 per cent of the tariff receipts from imports shall go to create a conversion fund or coin reserve, which will serve exclusively as a guaranty for the conversion of paper money.

The Colombian Congress has enacted a law authorizing the National Government to contract for a new issue of paper currency to the amount of 300,000,000 pesos, which will be partly applied to the redemption of old and deteriorated notes of previous issues.

A law published by the Colombian Government on December 3, 1909, provides for the establishment of packing houses on the Atlantic coast of Colombia, and the inauguration of such cold-storage transport service by land and sea as may be necessary for the exportation of the products. The concessionaire agrees to begin work on the plant within eight months from November 29, 1909, and to finish and completely equip the same within two years.

President JORGE HOLGUIN, in his message to the National Congress of Colombia delivered July 20, 1909, stated that the policy of the Colombian Government continues to be that of moderation and respect for public liberties, the securing of domestic peace, and the encouragement of the normal development of the country, to observe its traditional policy of friendship and amity with foreign powers, and especially with the countries of Latin America. He recommended the celebration of a treaty between Colombia and Venezuela looking to the settlement of all questions now pending or which may in future arise between the two countries; also a celebration of a boundary and arbitration treaty with Peru is urged.

During 1909 the treaty concluded between the representatives of Brazil and Colombia in 1908, covering the navigation of the Amazon and commercial rights thereon, received the approval of the Government of Colombia.

Arbitration treaties with Great Britain and France also received the approval of the Government.

During the last few years Colombia has carried forward a project for the construction of public works, especially with regard to means of communication and the building of railways, the opening of navigable rivers, and the improvement of ports, all of which have received the special attention of the Government.

The Colombian building and exhibits at the Quito Exposition, held during the summer of 1909, were most creditable and of great interest to both Republics.

COSTA RICA

GEOGRAPHICAL SKETCH.

The Republic of Costa Rica, the southernmost of the Central American Republics, is geographically situated between latitude 8° and $11^{\circ} 16'$ north and longitude $81^{\circ} 35'$ and $85^{\circ} 40'$ west of Greenwich. The Republic extends over an area of 23,000 square miles, and, although one of the smaller of the American Republics, it is larger in area than the States of Maryland, Massachusetts, and Delaware combined. It has a population of 368,780.

The topography of the country is similar to that of other Central American Republics, inasmuch as the mountain range, which crosses its territory almost in its entirety and which reaches considerable altitude, is the predominant feature. This mountain range influences the climate, making it pleasant on the plateaus and, at higher elevations, quite cold at certain times of the year. It is due to this diversity of climate that such a variety of products is to be found in Costa Rica, tobacco, cacao, sugar, indigo, rice, and coffee being successfully grown, while bananas form one of its principal products of export. India rubber and cocoa nuts are also gathered in the forests. India rubber is also cultivated, there being several comparatively large plantations in the Republic.

The natural resources of the Republic are so varied and numerous, considering the size of the country, as to make their enumeration most difficult, and few other Latin-American countries have so well deserved the careful study of scientists. For ages the land has been covered with a luxuriant growth of tropical forests, and, in consequence, the virgin subsoil has been overlaid with a thick vegetable mold seldom less than 10 feet in depth. The country contains a variety of tropical and subtropical vegetation on its cultivated lands, virgin forests, and open plains and savannas.

The tropical zone on the Atlantic side includes a section of territory from 20 to 22 miles in width covered with a prolific growth of lofty trees. This forest zone, together with the wooded district of the San Juan River and extending to the borders of Lake Nicaragua, comprises two-thirds of the territory of the Republic. In it are found in abundance the native hard woods of the country, including ironwood, cedar, mahogany, and other cabinet woods, together with campeachy and a number of other trees used in commerce for dyeing and tanning. These valuable timber lands offer exceptional advantages to the lumberman. The San Juan River, with its densely wooded valleys

and its numerous navigable tributaries extending into the wooded slopes of the interior of the nation, provides a natural transportation route to the markets of the world.

Costa Rica, appropriately so named by the early Spanish settlers on account of its immense natural wealth, contains, in addition to its virgin forests, broad savannas, and valuable vegetable and fruit products, mineral deposits of great value. Many gold mines were worked by the early Spaniards, and recently great activity has been shown in exploiting new and rich claims, and the indications are that in the near future this branch of industry will be developed to the full extent warranted by the richness of the mineral deposits in the extensive mining zones of the Republic. Much evidence is at hand to show that the native Indians worked, in a crude way, the silver, gold, and copper mines of the country, inasmuch as considerable quantities of these metals are found in the tombs of the aborigines to-day.

The principal products of the mines are gold and silver, although deposits of nickel, iron, and manganese are widely distributed. These deposits offer great opportunities for development and promise rich returns to labor and capital, as do the commercial and agricultural industries of the country.

HISTORICAL SKETCH.

When COLUMBUS, on his fourth and last voyage, had doubled Cape Gracias á Dios on September 12, 1502, after a stormy and eventful voyage, he sailed along the coast of Nicaragua and Costa Rica and landed on the coast of the latter country on October 5, 1502. The aborigines, who were at first disposed to treat the Spaniards kindly, soon became incensed at their treachery and destroyed the small settlement which COLUMBUS founded. No further attempts were made to settle the country at the time, and COLUMBUS, after losing a considerable number of men and one of his ships, abandoned the attempt and returned to Spain. Other explorers who followed in his wake were no more fortunate, the Indians opposing an effective resistance and repeatedly destroying the colonies of Spaniards. HERNAN SANCHEZ DE BADAJOZ was the first even to partially subdue the Indians and, in the year 1540, founded the city of Badajoz. In the year 1565 JUAN VAZQUEZ CORONADO was appointed Governor of Nuevo Cartago, as the country was then called, and finally established Spanish rule over practically all the country. He was ably assisted by the Bishop of Chiapas, BARTOLOMEO DE LAS CASAS, who was ever active in favor of the Indians. When the captain-generalcy of Guatemala was established Costa Rica was incorporated therewith and later, with Guatemala, formed a part of the viceroyalty of New Spain. As such its history is largely interwoven with the history of this viceroyalty.

When, on September 15, 1821, the independence of the Central American States was declared at Guatemala, the news was received with great joy by the people of Costa Rica, and on November 12, 1821, the last Spanish Governor, Don JUAN MANUEL DE CAÑAS, was obliged to resign his office.

Upon the formation of the Central American Republic, Costa Rica became a State of the Union, and with it, in the year 1822, was annexed by the Emperor of Mexico, AGUSTIN ITURBIDE. With the fall of that short-lived empire the Central American States were once more free to adopt their own form of government. A Constitutional Congress, which met in Guatemala, proclaimed on November 22, 1824, the Constitution of the Central American Federation. Afterwards, as the States composing the Federation one by one withdrew, Costa Rica declared her independence on April 1, 1829, but stated her willingness again to enter the union if ever reestablished.

Several attempts were made by the Central American States to reestablish the Federation, but without result, and on January 21, 1847, Costa Rica proclaimed her constitution and formally adopted the title of the Republic of Costa Rica. The constitution provided, however, that if the Central American Republic was ever reestablished the constitution should be amended or abolished to conform to that of the Federal Republic. Since that time the Costa Rican Republic has progressed in peace and prosperity. Such changes in the constitution as were found necessary have been made without internal disturbance, and the sovereignty of the State has been maintained at home and abroad.

Señor Don RICARDO JIMENEZ, the new President, was inaugurated May 8, 1910, for a term of four years.

CONSTITUTION AND GOVERNMENT.

The present constitution of the Republic of Costa Rica was proclaimed on December 7, 1871, and has been in force ever since, some slight amendments being added from time to time.

The Government is divided into the customary legislative, executive, and judicial branches, with functions similar to those of the same branches in other American republics.

The Congress of the Republic is composed of one chamber, the Chamber of Deputies, elected by indirect vote of electors chosen by the people for that purpose, at the rate of 1 deputy for every 8,000 inhabitants or fraction exceeding 4,000. The deputies serve for a term of four years, but the chamber is renewed by halves every two years.

A permanent committee composed of 5 deputies represents Congress during its recess and assists the President of the Republic in the

interpretation of laws. This committee, in addition, prepares and puts in order business remaining unfinished from an adjourned Congress, or may formulate new bills in order to facilitate the proceedings of the coming session. It may, on the request of the Executive, issue urgent decrees, which, however, are subject to the approval of Congress in regular session. It may, when so invited, form a part of the Council of Government, although as such it acts only in an advisory capacity.

The President of the Republic is elected in the same manner as the deputies, i. e., by an electoral college chosen by popular vote, all citizens over 20 years of age being entitled to suffrage. The President's term of office is four years, and he may not be reelected for a second consecutive term. Three *designados*, known as first, second, and third, are named by Congress to represent the President in case of his death, absence from the country, resignation, or inability to exercise authority. The *designados* assume and exercise office in the order of their appointment.

A Council of Government assists the President, composed of members of his cabinet and such other citizens as the President may from time to time appoint. The following four ministers or secretaries form the Cabinet: Secretary of Foreign Affairs, Justice, and Public Instruction; Secretary of the Government and Police; Secretary of the Treasury, Commerce, and Fomento; Secretary of War and Marine. The salary of the President is 18,000 colones (\$8,350) per annum.

The judicial powers are vested in a National Supreme Court, two Courts of Appeals, several criminal and civil courts, as well as a number of district and municipal courts and justices of the peace. The 5 justices of the Supreme Court are chosen by the Congress, while other justices are appointed by the Supreme Court.

The laws and constitution of the country are most favorable to the foreigner, according him, with the exception of suffrage, all the rights of a citizen. Foreigners are free to engage in business in the Republic on the same terms as citizens, and may acquire, possess, and dispose of real property without naturalization or restraint.

INTERIOR GOVERNMENT.

The territory of the Republic is divided politically into five provinces and two *comarcas* (territories), which are again divided into cantons and these into districts and municipalities. The provinces and *comarcas* are administered by governors appointed by the President of the Republic. The canton and district chiefs are appointed upon recommendation of the governors, and are assisted by municipal councils, elected by popular vote.

The provinces and *comarcas* of the Republic, with their respective capitals, are:

Province of—	Capital.
San Jose.....	San Jose. ^a
Alajuela.....	Alajuela.
Heredia.....	Heredia.
Cartago.....	Cartago.
Guanacaste.....	Liberia.
Comarca of—	
Puntarenas.....	Puntarenas.
Limon.....	Limon.

The principal cities, with their population are: San Jose, 40,000; Cartago, 7,000; Heredia, 7,000; Limon, 5,000; Puntarenas, 5,000.

ARMY AND NAVY.

The Costa Rican army, including reserves and the national guard, numbers 9,087 officers and men. The active army numbers 6,845 men, the reserves 1,470, and the national guard 520. The active army consists of 3 brigades, 1 battalion, 3 companies, and 135 unclassified soldiers. The war strength is estimated at 150,000 militia.

The land forces are supplemented by 1 Yarrow torpedo boat and a gunboat.

COSTA RICA IN 1909.

Political conditions in Costa Rica during 1909 were peaceful in every way, and the Republic showed its right to be considered among the most progressive nations of America, because a most exciting presidential election was held during the year, which was conducted with such national dignity that no disorder whatever occurred. During this period the country was recovering from the commercial crisis of the preceding year, and now that its prosperity is assured it can look hopefully forward for improvement in every direction.

Financially, the nation made satisfactory progress. The national revenue exceeded that of 1908, and while the expenditures about balanced the receipts, they were less, relatively, than those of the preceding year. A noticeable feature of the budget is that the amount expended on public schools is practically equal to that for military and police.

Agriculturally, an improvement was made over the preceding year. The coffee crop was much better, although it has not yet reached the high figure noticeable in the early part of the decade. The banana crop was still below par, the loss in this respect amounting to nearly \$700,000, although in the number of bunches exported the crop amounted almost to the figure of the remarkable year of 1907. These

^aAlso the capital of the Republic.

are the two great staples of the country. Besides these, however, hard woods are exported in considerable quantities, and as the interior becomes better opened this item will increase, because Costa Rica is rich in such natural resources.

Foreign commerce made a net gain, the balance of trade being in favor of the Republic.

Railroad development went on steadily, branch lines being extended into the banana territory near Limon, but the expected completion of the National Pacific Railway was delayed. There is every prospect, however, that this will be one of the features for congratulation during 1910.

Costa Rica is very liberal toward the foreign immigrant and settler, and encourages this means of increasing its population, but the nation has established no precise laws in this regard. There is abundant free land in the country, but it is not used as it should be. However, during 1909 the Government considered plans for the easier distribution of this land, and very probably the administration of President JIMENEZ will devote a great deal of study to this problem.

FINANCE.

According to the message of President VIQUEZ of May 1, 1910, the customs receipts for 1909 amounted to 4,420,567 colones,^a or nearly 230,000 colones less than estimated. The percentage of customs duties on imports was 33 in 1909, while it was 36 in the year 1908, showing an increase in articles of free import and a decrease in the more highly taxed articles.

The total treasury receipts amounted to 9,280,584 colones; and expenditures balance this amount. The principal receipts were: Taxes, 7,139,600 colones; credit operations, 1,204,512 colones, and banana tax, 225,907 colones.

The principal expenditures were ordinary administrative expenditures, 4,101,185 colones; public schools, 1,132,706 colones; military and police, 1,204,544 colones; and credit operations, 971,983 colones.

Money in circulation for the year was estimated by the President at 6,275,000 colones, of values as follows:

	Colones.
Foreign gold.....	1, 800, 000
National gold.....	2, 000, 000
Silver and silver certificates.....	875, 000
Bank notes.....	4, 000, 000
Total.....	8, 675, 000
Less gold reserve held by banks as guaranteed by notes.....	2, 400, 000
Net circulation.....	6, 275, 000

^a The colon has a value of 46½ cents United States gold.

COMMERCE.

The foreign trade of Costa Rica for the year 1909 amounted to 30,723,001 colones, as follows: Imports, 13,139,653 colones; exports, 17,583,348 colones; balance of trade in favor of the Republic, 4,443,695 colones.

In 1908 the figures were: Imports, 12,106,448 colones; exports, 16,697,040 colones; total, 28,803,688 colones; balance of trade, 4,591,592 colones. There was an increase of 1,033,405 colones in the value of imports, and 885,908 colones in exports, or a total of 1,919,313 colones. Estimating the colon at \$0.465 United States gold, the total foreign trade of Costa Rica for 1909 would amount to \$14,286,195, of which amount \$6,109,938 was imports and \$8,176,257 was exports. The increase in imports was about 8½ per cent and exports about 5½ per cent.

By countries of origin for the year 1909 the imports were as follows:

United States.....	\$3, 376, 350. 00
Great Britain.....	1, 115, 676. 68
Germany.....	802, 234. 86
France.....	305, 497. 00
Spain.....	160, 691. 37
Italy.....	159, 469. 88
Belgium.....	97, 759. 07
Spanish America.....	77, 596. 21
Other countries.....	14, 662. 85
Total.....	6, 109, 937. 92

The imports from the three leading countries for the preceding year were: United States, \$2,617,673; Great Britain, \$1,282,379; Germany, \$647,225. It will be seen that the United States made a considerable gain in exports to Costa Rica, and that this gain has been at the expense of Great Britain, Germany, and France.

Importation by articles for the year was as follows:

Cotton goods.....	\$693, 521
Flour.....	463, 573
Machinery.....	223, 747
Lard.....	157, 242
Drugs.....	119, 306
Railroad material.....	119, 146
Lumber.....	118, 057
Electrical material.....	104, 785
Canned goods.....	46, 137
Cod fish.....	44, 942
Maize.....	44, 351
Fence wire.....	32, 736
Hardware.....	29, 434

In all of these articles, with but one exception, the United States led in the amount of the imports. The one exception was cotton

COSTA RICA

- 1909 -

UNITED STATES	\$3,376,350
	4,802,254
GREAT BRITAIN	1,115,676
	2,944,947
GERMANY	802,254
	166,686
FRANCE	305,497
	117,298
SPANISH AMERICA	77,596
	128,004
OTHER COUNTRIES	432,583
	17,068

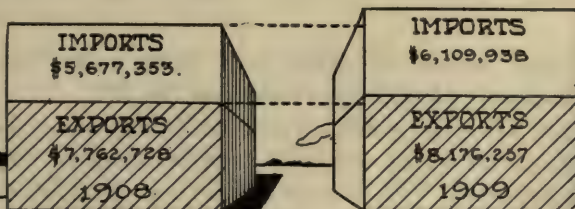
COMMERCE BY
COUNTRIES ENGAGED IN TRADE
WITH COSTA RICA

EXPLANATION

IMPORTS
EXPORTS

BANANAS	\$4,355,045
COFFEE	2,639,873
GOLD & SILVER	792,847
HIDES	105,020
RUBBER	71,756
CACAO	55,765
WOODS	22,320
MOTHER & PEARL	16,022
TORTOISE SHELL	9,946

PRINCIPAL
ARTICLES EXPORTED



\$13,291,226 TOTAL COMMERCE 1908 \$14,286,195 1909

goods, of which there was imported from England \$267,268 and from the United States \$213,176. According to the Costa Rican statistics the import of flour from the United States was valued at \$460,775; lard at \$152,726; machinery at \$164,027; railroad material at \$76,641; lumber at \$118,057 (the total importation); maize at \$44,351 (total importation); codfish, \$36,872; electric material, at \$81,568; drugs, \$60,703; canned goods, \$25,466; fence wire, \$32,704 (practically the whole importation); hardware, \$21,125.

The exports for the year 1909 by countries were:

United States.....	\$4, 802, 254
Great Britain.....	2, 944, 947
Germany.....	166, 686
Spanish America.....	128, 004
France.....	117, 298
Other countries.....	17, 068
Total.....	8, 176, 257

The exports by articles were as follows:

Bananas.....	\$4, 355, 045
Coffee.....	2, 639, 873
Gold and silver bullion.....	792, 847
Hides (cattle).....	105, 020
Rubber.....	71, 756
Cacao.....	55, 765
Woods.....	22, 320
Mother-of-pearl.....	16, 022
Tortoise shell.....	9, 946
Deerskins.....	8, 798
Turtles (live).....	3, 487
Specie.....	2, 434
Grindstones.....	1, 342
Horns (cattle).....	1, 241
Miscellaneous.....	80, 361
	8, 176, 257

The principal woods exported and their values were: Cedar, \$15,581; mahogany, \$5,805; and rosewood, \$8,557.

As compared with the preceding year, there was a decrease of nearly \$700,000 in bananas, which was more than balanced by large increases in the other exports. The banana export has been, since 1906, the principal export of Costa Rica, and up to 1907 the industry advanced in great strides. The export of 1904 exceeded that of the previous year by 18 per cent. In 1905 there was another gain of 20 per cent, in 1906 a gain of 22 per cent, and in 1907 a gain of 14 per cent, each of these gains over the preceding year. In this last year, 1907, the export was 10,165,759 bunches. In 1908 it barely exceeded 10,000,000. In 1909 it was 9,365,690. Of this amount, there was exported to the United States 7,861,861 bunches, and to England

1,503,829. The export to England is a comparatively new export, as practically all of the bananas formerly went to the United States.

The export of coffee from Costa Rica was 12,030,104 kilograms, as compared with 8,977,531 in 1908. The year 1908 was a very bad crop year on account of excessive rains. In 1905 the export of coffee was over 18,000,000 kilograms, in 1906 nearly 14,000,000, and in 1907 17,300,000. The Costa Rican coffee trade is not increasing as it was hoped it would. Practically all of the Costa Rican coffee went to Great Britain. At present a considerable market for the product is developing in other countries, particularly in the United States. The export by bags for the year was as follows: Great Britain, 156,849; United States, 17,370; Germany, 9,824; France, 8,431; other countries, 582; total, 193,056. Of this amount, the port of Limon on the Atlantic sent 168,195, and Punta Arenas on the Pacific sent 24,861. All of the coffee shipped to the United States was cleaned, but nearly half of that going to other countries was shipped in the husk.

INDUSTRIES.

The two principal products of Costa Rica are bananas and coffee. The coffee of the country has been famous for years and has been shipped almost exclusively to England, where it always obtains a good price, and has an enviable reputation for its quality and flavor. There are 30,000 hectares (74,130 acres) of coffee under cultivation.

The cultivation of bananas is at present the greatest industry in the Republic, 37,000 hectares (91,427 acres) are devoted to the plant. The area especially suited to this fruit is along the coast of the Caribbean Sea, extending from near the Nicaragua frontier to that of Panama. The fruit here is handled as scientifically and as profitably as in any part of the world, and is transmitted, often in ships built especially for that purpose, directly to most of the northern ports of the United States and Europe.

Cacao production is reported to have steadily increased during the last three years, and to be rapidly becoming one of the principal exports. Since 1904 the planting of cacao has been increasing and the results are now beginning to show. The exports of this article from Port Limon in 1906 were 387,800 pounds; in 1907, 611,300 pounds; and in 1908, 784,450. About 1,000,000 pounds were exported in 1909. There is abundant cacao land in the northeastern part of this Republic not yet taken up. This land can be obtained reasonably from the Government, which offers every encouragement to settlers, giving them tracts of 100 acres each and paying a subvention of \$0.12 for each cacao tree when 3 years old. From 300 to 400 trees are planted to the acre, and at 5 years old should bear 5 pounds of cacao each.

An executive decree of November 23, 1909, with a view to encouraging the development of agriculture in the Republic, admits imports of seeds, vegetables, and plants free of customs, wharfage, and consular duties.

The cattle imported into the Republic after January 1, 1909, were exempt from duty, and at the same time the Government ceased paying a bounty on cows and heifers brought in for breeding purposes. However, until December 31, 1911, the Government will continue to pay the maritime and land freight on fine breed cows and bulls imported from Europe and the United States. Exportations of fine cattle are now subject to a tax of \$11.73 per head, and in the event of the animal exported being one brought in at the expense of the Government, the export charges shall be increased by the amount of the freight charges originally paid upon the animal. Other important regulations in reference to the shipment of live stock have been promulgated. The National Society of Agriculture is interested in the improvement of this branch of national industry, the establishment of pedigree registers, and the holding of agricultural and stock fairs. The society also interests itself in securing seed of the best grades for the use of agriculturists, and recommends the importation of agricultural machinery of the best type and of fertilizers.

The mining industry is in a flourishing condition, and is being encouraged and stimulated by the Government by the free importation of mining machinery, tools, implements, and materials required in the exploitation of mines. Gold is the metal which has been most exploited. The Aguacate mines have been famous for years, and production from them has been steadily profitable from the time of their discovery. It promises now to increase materially, because modern methods and modern machinery with which the work can be prosecuted on a larger scale are being installed. The whole gold district is on the Pacific slope, within easy reach of transportation. Another group of mines is worked by the Abangares Gold Fields of Costa Rica Company, in the neighborhood of which are several other organizations worked by American capital.

While Costa Rica is not a manufacturing country, yet there are sufficient industries to supply many of their local wants. Shoes are well made there, and other articles of domestic consumption are produced by native skill.

RAILWAYS AND INTERIOR WATERWAYS.

Costa Rica has in actual operation 652 kilometers (405 miles) of railway, all of 3-foot 6-inch gauge. Of this mileage 69 is the property of the Government, 131 belongs to the Northern Railway Company, and 205 to the Costa Rican Railway. As a matter of fact, however, the Costa Rican Railway is leased to the Northern, so that the whole

system, having its focal point at Port Limon, is under one general management. Both these roads are well constructed with steel and iron bridges, suitable stations, and sidetracks, and are maintained in good condition. Various branch lines have been extended up and down the coast for the service of the banana industry. The main line leaves Port Limon, passing through Matina, Siquirres, Turrialba, and Cartago, reaching San Jose, the capital of the Republic at a distance of 103 miles. The system is continued to Alahuela, 14 miles north of San Jose.



MAP SHOWING THE RAILROADS IN OPERATION IN COSTA RICA.

The Pacific Railway, which is owned and operated by the National Government, extends from San Jose to Puntarenas, on the Pacific coast, a distance of 69 miles. It is still unfinished between Cascajal and El Roble, a distance of 12 miles, but there is every prospect that this gap will be filled before the termination of 1910, in which case there will be through connection between the Atlantic and Pacific, and a scenic route will be open to the public which will rank among the most interesting in Latin America.

At Port Limon terminal facilities are excellent. There are two wharves with accommodations for 6 large and 2 small steamers, and so equipped with track facilities that loading and unloading can be

carried on directly from the car to the vessel, if so desired. At Puntarenas the harbor has only 15 feet of water at low tide, necessitating the handling of cargo by lighters.

There are no less than 16 navigable rivers in the Republic, some of which are navigable for a considerable distance inland, the most important of these being the San Juan River and its tributaries, which are largely utilized for the transportation of the natural products, several small steamers as well as other craft plying regularly between the coast and inland ports. This river, which flows along the northern boundary of Costa Rica, communicates with the beautiful Lake Nicaragua, situated in the Republic of Nicaragua and navigable for large vessels.

A general transportation law has been enacted by the Congress of Costa Rica, and was promulgated by the President of the Republic to become operative on December 4, 1909. The law regulates the transportation of passengers and freight on land and sea, specifies the conditions that shall appear on bills of lading, and sets forth the obligations and rights of shippers, transporters, and consignees. The new law treats fully of the transport of live animals and perishable material, and also of the carriage of passengers and baggage, and of everything relating to transportation in all forms.

On December 8, 1909, the President of Costa Rica promulgated the railway law, which provides that no railway for the transportation of passengers and freight shall be constructed in the Republic without the consent of the Congress, and that on the expiration of a railway concession, which in no case shall be granted for a longer term than ninety-nine years, the entire railway, including rolling stock, buildings, grounds, and appurtenances shall become ipso facto the property of the nation. All railway concessions are subject to the laws and regulations of Costa Rica now in force or which in future may be enacted, and no foreign contractor shall have the right to appeal to any laws other than those of Costa Rica in the settlement of any disputed questions that may arise in the construction, exploitation, or management of the railway.

No railway concession shall confer a monopoly upon any railway company, and the State reserves the right to parallel, cross, or intersect any railway for which a concession has been granted, or to penetrate the region traversed by the same, as it may deem expedient, by means of wagon roads, canals, railways, tramways, or any other means of communication. Nevertheless, the concession may prohibit the construction of a parallel railway within certain limits for a period of ten years. All railways and railway property are subject to the law of expropriation should the welfare of the State so require.

The sale, lease, or transfer in any manner whatsoever of a railway concession before becoming valid is subject to the approval of the

Congress. In no case shall a railway concession, railway, telegraph, or telephone line be sold, mortgaged, leased, or transferred in any manner to any foreign power, nor shall a foreign Government or State become a partner or owner of the stock, bonds, or obligation of any railway company. No government railway shall be leased to individuals or companies without the consent of Congress, nor shall the Government enter into any agreement for the recession of a railway concession without first obtaining the authorization of Congress.

Companies or persons desiring to secure a railway concession must apply to the Secretary of Fomento, accompanying the application with a general plan or sketch of the line, showing the length of the road, the bridges, stations, culverts, etc., to be constructed, and the estimated cost of the road, all of which shall be subject, in case the concession is granted, to modification by the Government. All railways operating in the Republic, whether organized abroad or not, are considered Costa Rican companies, and are subject to the laws of the land.

The law provides for government inspection of railways, specifies the manner in which freight and passenger tariffs shall be issued, and guards, in general, the interests both of the public and of the railway companies in a just and equitable manner.

In case of war, the Government, should it consider advisable to do so, has the right to suspend traffic on any railway line for the defense of the state, but in such case the railway company shall be entitled to such indemnity as may be agreed upon or determined in accordance with the provisions of this law.

During 1909 the San Jose Electric Street Railway and Light Company extended its tracks some 5 miles to the adjacent village of Guadalupe. Its most important feature of development, however, is the hydro-electric plant known as "El Brasil." This is being constructed by the Purdy Engineering Company of San Jose, Costa Rica, and the power will be obtained from the Virilla River below its junction with the Uruca River, about 10 miles from San Jose. The completion of this plant will mark a new era in San Jose, because it is proposed to furnish electricity at such a low rate that it will be cheaper than any other fuel for cooking.

MEANS OF APPROACH.

Costa Rica, with a seacoast on both the Caribbean Sea and the Pacific Ocean, is in direct steamer communication, through Limon, with the principal ports of the United States, Europe, the West Indies, and the northern part of South America; on the Pacific side, Puntarenas is in regular communication with Panama, ports of Central America, and Mexico, to California; and on one line at least passengers and freight are carried without change to the west coast

of South America, through the Strait of Magellan, and thence to Germany.

The United Fruit Company maintains an excellent service from Boston, New York, and especially New Orleans. The schedules of these steamers, taken in connection with those of other lines, offer practically a daily mail and passenger service between Costa Rica and the United States.

On the Gulf of Nicoya a steamboat line connects Puntarenas with the local ports on that body of water, but these can be reached overland from the southwestern extremity of Nicaragua. The only other means of approach from this Republic to the north is over the road on which the two governments maintain regular postal service.

With Panama, on the south, there is regular steamer communication between Colon and Limon, and between Panama and Puntarenas. In addition to this waterway, Panama may be reached by the railway running 16 miles from Limon southward, where it approaches within 34 miles of the frontier; this frontier is only 24 miles from Bocas del Toro, and a railway is projected over this gap. When it is completed, it will form a portion of the Pan-American system.

POSTS AND TELEGRAPHS.

The Government of Costa Rica has encouraged the betterment of the postal and telegraph services, and during the last few years these two branches of the public service have reached a high plane of efficiency. During the calendar year 1909 the number of pieces of mail matter handled aggregated 6,939,712. According to the latest available data there are 197 post-offices in the Republic.

The Republic has parcels-post and money-order conventions with the United States and other countries of America and Europe.

The parcels-post convention made between the representatives of Mexico and Costa Rica, and signed in the cities of Mexico and San Jose by the representatives of the two nations on June 21 and August 11, 1909, was approved by the Mexican Senate on October 18 of the same year, being promulgated by President DIAZ on October 21. The convention will become effective at a date to be agreed upon by the Postmasters-General of the two Republics.

The Government is constantly constructing new lines for the telegraph and telephone service. The system comprises 119 offices. In 1909 the number of messages transmitted totaled 505,375. There are 1,335 miles of telegraph lines in operation.

All centers of population are connected with each other by wire, and with the neighboring nations and the rest of the world. During the year the telephone facilities of the capital city were materially increased, and it is safe to say that within a very short time communication with Puntarenas by telephone will be possible.

Wireless telegraphy has become an important factor in the development of international communication, the Government having established a station on the Atlantic coast, one at Boca del Colorado, and others at convenient points to communicate with incoming and outgoing steamers. The United Fruit Company has equipped a station at Port Limon for intercommunication with their other stations and for public business. This is said to be one of the best equipped and most efficient stations in Central America.

EDUCATION.

The matter of education and general improvement of the public school system of the Republic is receiving the serious consideration of the Government. This branch of public instruction carries an annual appropriation of \$325,000, the cost to the Government per pupil being computed at \$12.09.

All public schools in Costa Rica are, according to a report of United States Consul SAMUEL T. LEE, at San Jose, controlled by a national minister, and the office which has direct charge of this work is known as *El Despacho de Instrucción Pública*. The head of the office has the official title of *Subsecretario de Estado en el Despacho de Instrucción Pública*.

For the administration of primary public instruction Costa Rica is divided into five divisions, each division subdivided into circuits and districts. The district is the unit, and each district has its school board, which looks after financial matters. The technical direction of the public primary schools, however, is entirely under the *Jefatura Técnica*, which is directly responsible to *El Despacho de Instrucción Pública*. The five divisions referred to fall under the direction of *Jefatura Técnica*. Two of these divisions have five circuits, one has four circuits, two have three circuits, and one has one circuit. At the head of each circuit there is an inspector of public instruction, who is responsible for the work of the schools in the various districts of the circuit. The foregoing applies only to primary instruction.

The *Colegios de Segunda Enseñanza* (high schools) are directly and exclusively under the control of the Secretary of Public Instruction. The names of these institutions follow: *Liceo de Costa Rica* (has normal training department); *Colegio Superior de Señoritas* (normal department); *Liceo de Heredia*; *Instituto de Alajuela*; and *Colegio de Cartago*. The first three are supported entirely by national funds, while the expenses of the last two are met equally by municipal and national funds.

The *Liceo de Costa Rica*, for boys, has a department given over to normal training, as has also the *Cólegio Superior de Señoritas*. These two departments are really the national normal schools of Costa Rica, one for males and the other for females. There are 130 government

scholarships divided between these two schools, and for these "*pensionistas*" the National Government buys all text-books at local bookstores on the orders of the directors of the institutions. Save in the cases of indigent children, the pupils throughout the Republic are required to furnish their own text-books.

There are 30,000 children in average attendance in the primary and 1,200 in the secondary schools, with about 1,000 teachers.

In March, 1909, new systems for the practical training of public school pupils in Costa Rica were introduced.

President GONZÁLEZ VÍQUEZ on September 25, 1909, signed the decrees necessary for the establishment of preparatory schools of arts and crafts (*Escuelas Preparatorias de Artes y Oficios*) and of schools of domestic instruction for women in the various provincial capitals.

In addition to the regular scholastic course the new regulations prescribe training in various manual branches, including carpentry, cabinetwork, horseshoeing, tailoring, shoemaking, painting, and tinning.

In the women's department, instruction is to be given in cooking, washing, and ironing, sewing, etc., and such branches of higher manual training as may conduce to the application of improved methods in all walks of life.

In order that foreign medical diplomas be accepted in Costa Rica it is necessary that they be issued by colleges or schools officially recognized by the Government of the nation in which such institutions are located. In addition, each diploma presented for registration should be certified to by a notary public of the place where it is issued, and all the requisites required by law for the certification of foreign documents must be complied with. Said certification must, furthermore, bear the signature of the Secretary of State of the country in which the diploma is conferred, and that of the Secretary of Foreign Relations of Costa Rica authenticating the signature of the Secretary of State of the nation in which the school issuing the diploma referred to is situated. After these requisites have been complied with, physicians having foreign diplomas who desire to practice medicine in Costa Rica will be licensed to do so.

In accordance with Article V of the treaty of Washington, which created the Central American Pedagogical Institute, the Costa Rican Government was authorized to construct the necessary edifices for the proper accommodation of the institute. A suitable location for these buildings was selected in the vicinity of the city of Barba, which site was duly approved by the Second Central American Conference, which met in San Salvador on February 2, 1910. Accordingly, the President of Costa Rica has designated by executive decree certain lands to the east of the city of Barba as the site on which the buildings are to be erected.

GENERAL INFORMATION.

In conformity with the homestead law, which became effective November 19, 1909, every Costa Rican citizen who is the head of a family has the right to acquire 50 hectares of public land for settlement and cultivation. After entry is made a house must be built upon the land, a part of which must be placed under cultivation and residence maintained thereon. After the expiration of three or five years, as the case may be, according to the conditions of entry and the use to which the land is put, if all the requirements of the law have been complied with, title to the property in fee simple will be issued to the settler. A naturalized citizen must have resided with his family at least one year in the Republic prior to entry upon public lands under the homestead law. By head of a family is meant any married man, or widower with children born in wedlock, or unmarried man who has to support one or more minor brothers or sisters who have lost their father.

The President promulgated on July 7, 1909, a law enacted by the Federal Congress on June 30, of the same year, placing, on and after October 29, 1910, an export tax of 1 cent American gold on each bunch of bananas exported, regardless of the quality of the fruit or the size of the bunch. For a period of twenty years, or until October 29, 1930, neither the exports of bananas nor the banana industry shall be subject to any federal or municipal tax, unless the same be for some national purpose, such as wharfage or the like, in which case damages will be paid to the parties in interest. The export tax must be liquidated in American gold or in sight drafts on New York approved by the Treasury Department.

By a contract between the Government and the United Fruit Company, which controls the banana business of the country, the company waived its right to exemption from October 29, 1908, or for the last two years of the exemption period, and will pay tax on all bananas exported after that date.

On August 9, 1909, President GONZÁLEZ VÍQUEZ delivered a short but important message to the Federal Congress, assembled in special session to consider the question of the conversion of the foreign debt and the obtaining of a loan under such conditions and terms as will tend to strengthen the national credit at home and abroad and encourage and develop the agricultural, commercial, and manufacturing industries of the Republic.

The executive recommended the approval of the contract made by the Special Commissioner of Costa Rica with the National City Bank of New York, believing that the bringing in of new capital is the most practical way for the nation to settle its foreign indebtedness and inject new vigor and life into the fountains from which flow the

public wealth of the country. The President left the details of the agreement with the National City Bank to be explained to the Congress by the Secretary of Finance, but the plan in general contemplated the funding of the entire debt of the Republic, with the exception of the debt in favor of schools and eleemosynary institutions.

The executive recommended, furthermore, that the payment of the loan be guaranteed by the tax on bananas and the receipts from customs. The arrangement contemplates the establishment of a funding deposit to be applied to the payment of the debt.

On May 25, 1909, the Congress of the Republic of Costa Rica adopted a resolution approving the convention passed in Washington on January 13 of the same year, providing for the settlement by arbitration of differences, arising from the interpretation of existing treaties or of a legal character, by the Hague Tribunal. The convention further stipulates the form in which matters at issue shall be submitted to the arbitration tribunal, and will materially strengthen the cordial relations existing between the United States and Costa Rica.

On June 28, 1909, the President of the Republic of Costa Rica ratified the arbitration treaty celebrated in Washington on January 13, 1909, between the representatives of the Government of Costa Rica and the United States. The treaty is for a period of five years, and is to remain in force thereafter until one year's notice of its termination shall be given by either of the parties thereto.

The arbitration convention between Costa Rica and Brazil, celebrated in Washington by the Ambassador of Brazil and the Minister of Costa Rica on May 18, 1909, was approved by the Congress of Costa Rica on October 11, 1909, and signed by the President of the Republic on the 20th of the same month and year. This convention is made in conformity with the principles contained in the convention for the peaceable settlement of international conflicts, signed at The Hague on July 29, 1899, and Articles XXXVII to XL and XLII of The Hague Convention of October 18, 1907.

The Government of Costa Rica has given a concession for cutting and exporting cedar and mahogany from a tract of 400 square miles near Guapiles. The concessionaire is to pay 70 cents for each tree cut and 58 cents for each log exported, which will make a tax of about \$2 for each tree. The concession is considered quite valuable.

The Fourth International Sanitary Conference was held in San Jose, capital of Costa Rica, from December 25, 1909, to January 2, 1910.

CUBA

GEOGRAPHICAL SKETCH.

Cuba, the largest of the Antilles, is geographically situated between $19^{\circ} 40'$ and $23^{\circ} 33'$ latitude north and 74° and 85° longitude west, in length over 730 miles, with an average width of 50 miles. It has an area of 45,883 square miles, exceeding the area of the State of Pennsylvania by more than 600 square miles, and a population of 2,048,980, equal to almost 45 per square mile, or about one and a half times the population per square mile of the United States of America (29.6), being one of the most densely populated of the American Republics.

Several irregular mountain chains cross the territory of Cuba in in various directions, forming between them a number of extremely fertile and healthful plateaus and valleys, in which nearly all the products of the Tropics are successfully raised. The Republic is especially noted for the excellence of its tobacco and sugar, which constitute the most important articles of export. Grape fruit, oranges, and other citrus fruits, as well as pineapples, are now being extensively grown for export. The forests contain valuable cabinet woods, such as mahogany and cedar. In the Province of Oriente, copper, manganese, and iron mines are worked, the last named being very extensive. Gold is found in the island, and there are also rich beds of asphalt, but neither has been exploited to any great extent.

HISTORICAL SKETCH.

The island of Cuba was discovered by COLUMBUS on his first voyage of exploration, on October 28, 1492. He landed at what is now called the Bay of Nuevitas and took possession of the country in the name of the King of Spain. The country was called successively Juana, Santiago, and Ave Maria, finally regaining its original Indian name of Cuba. DIEGO VELASQUEZ was appointed governor of the island in the year 1511, and to him fell the task of subduing the aborigines, the warlike and savage Caribs and Nahacs. Cuba was important to the Spaniards as a strategical point. From the island numerous expeditions started for the mainland, among the most important being that of CORTEZ, which resulted in the conquest of Mexico. Later on, the vast mineral wealth of Mexico and Peru having been made known, Havana became the rendezvous for the treasure ships. From Havana they sailed under protection of the war vessels for Spain.

It was due to the importance of Havana that the French, Dutch, and British buccaneers during the sixteenth and seventeenth cen-

turies attempted on several occasions to capture the port; while unsuccessful, they succeeded in more than one attack in carrying off valuable booty.

When Spain was at war with Great Britain and France, in the year 1762, a strong British army was sent out to conquer Cuba. After a siege of two months, Havana surrendered to Lord ALBEMARLE on August 12, 1762. The British retained possession of the island until the year following, when, by the treaty concluded between the three powers, Cuba was once more restored to the Spanish authorities on June 6, 1763.

Although the movement for independence was initiated in Cuba early in the nineteenth century, she was to suffer more and obtain her independence later than any of the other American Republics, the Spanish Government being determined to retain control of the Pearl of the Antilles. In none of the Spanish-American countries, perhaps, was the war for independence more fiercely contested than in Cuba, in spite of which such indefatigable patriots as JOSÉ MARTI, BARTOLOMÉ MASÓ, MAXIMO GOMEZ, and others continued the struggle until at last the people of the United States of America were roused by the atrocities committed by the Spanish General WEYLER, and the intervention of the latter country resulted in the war with Spain in the year 1898. When, by the treaty of Paris, December 10, 1898, the war was ended, Cuba became free and independent, and TOMAS ESTRADA PALMA was inaugurated President of the Republic of Cuba on May 20, 1902. Thus the struggle for independence, which lasted eighty years, but which may be said to have taken definite form with the famous proclamation of the patriots on October 10, 1868, known as the "Grito de Yara," was brought to a successful end.

President ESTRADA PALMA resigned his office on September 28, 1906, and the United States of America temporarily intervened until new elections could be held. Gen. JOSÉ MIGUEL GOMEZ was elected President and ALFREDO ZAYAS Vice-President in December, 1908, and were formally inaugurated on January 28, 1909, when the Provisional Governor, CHARLES E. MAGOON, withdrew.

CONSTITUTION AND GOVERNMENT.

The constitution of the Republic of Cuba, proclaimed on February 21, 1901, provides for a republican, representative form of government, with the usual division into legislative, executive, and judicial branches.

The Senate and the House of Representatives, forming together the National Congress, are intrusted with the legislative power. The former consists of 24 and the latter of 64 members. Senators are elected indirectly for a term of eight years, at the rate of four Senators for each province, and the whole Senate is renewed by halves every four

years. Representatives are elected by popular vote, every citizen over 21 years of age having the right of suffrage. They are elected for a term of four years, at the rate of 1 for every 25,000 inhabitants, and the House of Representatives is renewed by halves every two years.

The President of the Republic, assisted by a Cabinet of 8 Ministers or Secretaries, exercises the executive power. Cabinet officers are appointed by the President, but are responsible to Congress for their acts. They are as follows: Secretary of State, Secretary of Justice, Secretary of Government, Secretary of Promotion, Secretary of Health and Charities, Secretary of Public Instruction and Fine Arts, Secretary of Public Works, Secretary of Agriculture, Commerce, and Labor.

The salary of the President is \$25,000 United States gold. The salary of the Vice-President and of each Cabinet officer is \$6,000 per annum. The President and Vice-President are elected indirectly, in the same manner as are the Senators, by an electoral college chosen by the people for that purpose. They are elected for a term of four years, and may not serve more than two consecutive terms.

The judicial power of the country is vested in a National Supreme Court, 6 Superior Courts, 1 for each province, 36 Courts of the First Instance, and a number of minor courts. The justices of the Supreme Court are appointed by the President of the Republic, with the advice and consent of the Senate.

INTERIOR GOVERNMENT.

Cuba is politically divided into six provinces, which are again divided into municipal districts. The administration of each province is in the hands of a Governor, assisted by a provincial council, both elected by popular vote for a term of four years, while the municipal districts are administered by a Mayor and a municipal council, likewise elected by popular vote.

The provinces of Cuba and their respective capitals are:

Province of—	Capital.
Pinar del Rio.....	Pinar del Rio.
Havana.....	Havana. ^a
Matanzas.....	Matanzas.
Santa Clara.....	Santa Clara.
Camaguey.....	Camaguey.
Oriente.....	Santiago de Cuba.

The principal cities and the population of each are: Havana, 302,526; Camaguey, 66,460; Guines, 32,216; Cardenas, 28,576; Colon, 52,006; Matanzas, 64,385; Gibara, 39,343; Guantanamo, 43,300; Holguin, 50,224; Manzanillo, 54,900; Santiago, 53,614; Pinar del Rio, 50,071; Cienfuegos, 70,416; Sancti Spiritus, 36,572; Santa Clara, 46,620.

^a Also, capital of the Republic.

ARMY AND NAVY.

The permanent army of Cuba in 1909 consisted of a general staff, a brigade of 2 regiments of infantry of 3 battalions each, 2 batteries of light field artillery, a machine-gun corps of 4 companies, and a corps of coast artillery. The infantry force consisted of about 2,500 officers and men, the field and mountain artillery of about 800, the machine-gun company of about 500, and the corps of coast artillery of about 1,000, which, with the band of staff, made a total of about 5,000 officers and men.

The two artillery officers of the United States Army detailed for duty with the permanent army of Cuba are performing excellent service. The army as now constituted has attained a high degree of efficiency not only in organization, but also in discipline and morale.

In addition to the regular army there is a well equipped and organized rural guard. This important constituent part of the armed forces of Cuba consists of 3 regiments of cavalry, each with 3 squadrons of 4 troops, each troop having 140 men. The commissioned officers of each troop consist of 1 captain, 2 first lieutenants, and 1 second lieutenant.

The rural guard is scattered in small detachments of from 10 to 12 men all over the island. The function of these troops is to maintain public order and patrol the entire country. They are expected, however, to refrain from exercising police power within the municipal zones excepting when called upon by the proper authorities. The guard is a fine body of men, and they have gained the confidence and good will of the general public. At Camp Columbia, near Havana, a squadron of the rural guard is regularly maintained for drilling purposes and military instruction. A cavalry officer of the United States Army detailed for temporary service is in charge of the instruction and is also head of the Military Academy for Officers, which is located there.

The navy consists of five 30-ton launches.

CUBA IN 1909.

The foreign relations of the Republic with the nations of the world continued to be most cordial, and especially was this true of the United States. Since President GOMEZ assumed office the ministers of Spain, Great Britain, and Venezuela have presented their credentials and become part of the Diplomatic Corps of the Republic.

Industrially Cuba ranked high among the American Republics. Good crops characterized the whole season. Many miles of fine roads were opened throughout the island, especially in the Province of Oriente, and private and public improvements of great importance

were undertaken. The distress caused by the cyclones from which parts of the country recently suffered has been greatly ameliorated, and the Cuban people have responded in a fitting manner to the call of patriotism and friendship and have promptly relieved, in so far as possible, the sufferings of their unfortunate countrymen.

The financial condition of the country in 1909 was most satisfactory. The deficit which had been reported at the beginning of the year was noticeably reduced, at the same time that all obligations of the budget were met, and there still remained at the end of the year a large sum of ready money. The sum collected by the Government was practically the same as the estimates called for, but the expenditures actually fell below the authorized sum for the same period. Drainage work in Havana and Cienfuegos were carried well forward for the amount of money in the treasury. The estimated revenue also, for the fiscal year ending June 30, 1910, provided for a surplus of over \$3,000,000, which, if obtained, would be devoted to further public works.

Commerce for the fiscal year 1908-9 showed a considerable increase over the preceding year, the balance of trade remaining decidedly in favor of the Republic. Of the total imports, the United States supplied practically 50 per cent, Great Britain, France, Spain, and Germany following in the order named. Although food products still show too high a percentage of the imports, yet there are noticeable gains in manufactured goods and in material which goes toward permanent improvements. The value of exports to the United States was above \$100,000,000, almost 90 per cent of the total, and a remarkable advance over the \$78,868,490 in exports reported for 1908. The sugar crop was a most excellent one; the cacao crop doubled; fruits increased; and, in fact, the only one of the great agricultural crops to fall below normal was tobacco.

No great increase of the railway mileage of the country was attempted, the various systems having given more attention to permanent betterment of their rights of way and to increasing their facilities for carrying both passengers and freight.

The total immigration into the country reached a figure of 31,286. Of these, 24,662 were Spaniards, 1,903 were North Americans, and 1,560 were English, no other country of the 35 from which immigrants were reported showing as many as 1,000. The President, in a message sent to the Congress on November 1, 1909, advocated the encouragement of a system of colonization rather than the importation of immigrants accustomed to receive low wages and who would compete with Cuban laborers. In line with this are the arrangements which have been made to bring to Cuba about 100 families from Norway; on arrival, the Government will transport them free of charge to their final destination on one of the largest sugar

plantations, where free homes will be provided for them. It is expected that the Cuban Congress will appropriate a considerable sum to be placed at the disposal of the Department of Agriculture to aid immigration.

FINANCE.

In his message transmitted to Congress on April 4, 1910, President GOMEZ stated that at the time the present Administration assumed power, on January 28, 1909, there was in the Treasury \$2,658,828.74. The obligations of the budget of 1908-9, or rather the amount applicable to the month of January, amounted to \$2,023,775, which left an available balance in the Treasury of \$661,452.19 with which to meet special credits authorized by the laws, decrees, and commitments of the preceding Government. These last amounted to \$11,920,824.54, from which President GOMEZ deduced that a deficit existed of \$11,259,371.05.

In the message it is stated that the present Administration had, up to the 31st of March, 1910, reduced this deficit by the sum of \$3,373,029.18, meanwhile meeting all obligations of the budget, and that there remained in the Treasury in addition the sum of \$1,457,515.51 free of all obligations.

From the 1st of November, 1909, to the 31st of March, 1910, there was set apart by the General Treasury \$12,401,279.01 for payment of all kinds of obligations of the annual and of the fixed budgets. These items were: On account of debt from old budgets, \$462,067.03; on account of the laws of 1906, \$128,562.03; on account of laws of 1909, \$471,413.06; on account of the decrees of the Provisional Government, \$938,189.07; on account of special funds, \$1,209,491.06; total, \$15,611,003.09.

The receipts from all sources for the same period were:

Customs duties.....	\$10,721,301.07
Consular fees.....	157,186.10
Communications.....	399,890.05
Interior taxes.....	423,183.40
State property dues.....	75,439.69
Miscellaneous receipts.....	263,219.18
National lottery.....	1,141,529.70
Tax on the loan.....	1,530,440.10
Reimbursements.....	1,020,071.24
Special funds.....	1,447,884.63
Total.....	17,180,145.16

For the nine months from July 1, 1909, to April 1, 1910, the revenues, according to the budget of 1909-10, were estimated at \$25,369,088; the amount actually collected was \$25,342,198.52. The expenditures authorized for the same period were \$22,704,670; the amount actually expended was \$21,257,754.06.

The President states that from the sale of \$5,500,000 bonds (first third of the issue of \$16,500,000 authorized) there had been received the net amount of \$4,863,375. With this fund there had been paid out: On account of redemption of one-third of the bonds issued by the Revolutionary Junta of New York in 1896, \$731,585; on account of sewerage work in Habana, \$601,220.70; on account of sewerage work in Cienfuegos, \$1,512,002.06; total, \$2,944,807.76. Of the remainder, \$1,111,683.22 was in the Treasury and \$806,704.02 deposited with Speyer & Co., in New York.

According to the message of President GOMEZ, transmitted to the National Congress on December 12, 1909, the budget for the year 1910-11 amounts to: Receipts, \$29,805,698, annual budget, and \$4,973,982, fixed budget, or a total of \$34,779,680 in receipts. The expenditures are estimated: Annual budget, \$24,646,549.52, and fixed budget, \$4,973,982; total, \$29,620,531.52 expenditures. In the estimate of receipts the customs duties are placed at \$22,957,380.

In the consideration of this budget by Congress many amendments were added, some of them finally adopted and some rejected. It was finally passed on June 30, 1910, at \$31,000,000. A surplus was estimated at \$3,800,000, which would be devoted to public works.

COMMERCE.

The foreign trade for the fiscal year 1908-9 shows a very considerable increase over the preceding year. The total imports were \$86,791,371 and the total exports \$117,563,867, showing a volume of foreign trade of \$204,355,238, with a balance in favor of the Republic of \$30,772,106. The imports from the principal countries of origin were:

United States.....	\$42, 612, 242
United Kingdom.....	10, 639, 462
France.....	7, 576, 617
Spain.....	7, 390, 782
Germany.....	6, 350, 534
Other American countries.....	7, 325, 229
Other European countries.....	3, 336, 100
All other countries.....	1, 560, 405
Total.....	86, 791, 371

The value of the principal articles of import were as follows:

Cereals.....	\$11, 640, 991
Meats.....	9, 627, 128
Cotton and manufactures thereof.....	8, 023, 562
Iron and steel.....	4, 523, 952
Machinery.....	4, 108, 560
Manufactures.....	3, 724, 147
Food substances not otherwise classified.....	3, 660, 606
Vegetables.....	3, 568, 974
Vegetable fibers.....	2, 837, 486
Wood and manufactures thereof.....	2, 042, 161

About one-half of the cereals was imported from the United States, \$3,646,349 from Germany, \$1,919,005 from the United Kingdom, and \$1,072,243 from other European countries. Of meats, \$6,904,485 was from the United States and \$2,581,445 from other American countries. Of cotton and its manufactures there was imported from the United Kingdom \$3,438,196, from Germany \$1,677,077, from Spain \$1,215,668, and from France \$816,121.

The bulk of the iron and steel came from the United States, \$3,316,326, with the United Kingdom next in order, \$622,051. Of machinery, \$3,262,951 came from the United States and \$339,272 from the United Kingdom.

Of miscellaneous food substances the United States sent \$1,365,341 and other American countries \$2,074,879. Of vegetables the United States sent \$820,170, other American countries \$1,416,847, and Spain \$643,166. Of vegetable fibers the United Kingdom sent \$1,661,099, and other European and Asiatic countries \$697,830. Of food, oils, and liquors, Spain sent \$1,876,877, France \$303,597, and the United States \$276,028.

The exports to principal countries were:

United States.....	\$101, 457, 343
United Kingdom.....	4, 959, 040
Germany.....	4, 484, 290
Spain.....	1, 460, 445
France.....	1, 296, 447
Other American countries.....	2, 430, 469
Other European countries.....	1, 003, 857
All other countries.....	471, 976
Total.....	117, 563, 867

By articles the principal exports were:

Sugar, crude and refined.....	\$70, 996, 726
Unmanufactured tobacco.....	20, 072, 681
Manufactured tobacco.....	12, 938, 624
Copper and manganese.....	2, 543, 068
Fruits.....	2, 326, 854
Woods.....	1, 436, 045
Sirups.....	1, 196, 899
Skins and hides.....	1, 030, 811

The great bulk of all articles exported from Cuba under each of the heads above went to the United States except under the single head of manufactured tobacco; of this, which represented cigars and cigarettes, principally the former, the United Kingdom took \$4,166,211; the United States, \$3,767,037; other American countries, \$1,434,132; Germany, \$1,507,392; France, \$753,653; Spain, \$592,915; and other European and Asiatic countries, \$717,284.

Of unmanufactured tobacco, Germany took \$2,085,204. The principal Cuban exports outside of tobacco which did not go to the United States were: To England, sirup, \$434,988, woods, \$194,021, distillates, \$72,708; to Germany, hides and skins, \$202,725, woods, \$177,012, apiary products, \$356,637; to France, grains and vege-

CUBA

UNITED STATES	\$ 42,612,242
UNITED KINGDOM	101,457,343
FRANCE	10,639,462
SPAIN	4,959,040
GERMANY	7,576,617
OTHER AMERICAN COUNTRIES	1,296,447
OTHER EUROPEAN COUNTRIES	7,390,782
ALL OTHER COUNTRIES	1,460,445
	6,350,534
	4,484,290
	7,325,229
	2,430,469
	3,336,100
	1,003,857
	1,560,405
	471,976

COMMERCE BY COUNTRIES ENGAGED IN TRADE WITH CUBA

1908-9
(FISCAL YEAR)

IMPORTS
EXPORTS

EXPLANATION

SUGAR	\$ 70,996,726
TOBACCO UNMANUFACTURED	20,072,661
TOBACCO MANUFACTURED	12,938,624
COPPER, MANGANESE	2,543,068
FRUITS	2,326,854
WOODS	1,436,045
SYRUPS	1,196,899
SKINS AND HIDES	1,030,811

PRINCIPAL ARTICLES EXPORTED

EXPORTS	\$117,563,607
IMPORTS	\$69,791,971

TOTAL COMMERCE
\$ 204,355,238



tables, \$143,348, sponges, \$119,270, distillates, \$53,718; to other European countries, sirups, \$84,313, woods, \$77,263, apiary products, \$181,281; and to other American countries, distillates, \$158,293.

In 1908-9 the sugar crop was a most excellent one, with a yield of over a million and a half tons, nearly one-fourth the world's cane-

sugar supply. The export was 1,431,538 tons, all of which, except about 10,000 tons, went to the United States.

The total production of tobacco amounted to nearly 500,000 bales (of about 120 pounds each). This is a decrease of about 70,000 bales from the preceding year. The number of cigars exported was 181,294,502 as compared with 188,846,784 in 1908. There were exported during 1909 1,280,000 crates (of 80 pounds) of pineapples. This was nearly 250,000 in excess of the preceding year.

Cuba exported during the year to the United States 927,774 tons of iron ore as against 579,668 tons in the preceding year.

INDUSTRIES.

Cuba has always been essentially an agricultural country, and has obtained world-wide renown on account of the tobacco and sugar produced there. However, the extensive mineral products of the country have of late years attracted the attention of manufacturers and capitalists, so that the products promise to be more diversified as Cuba becomes better understood.

The sugar crop harvested in the year just past is the largest ever produced in the Republic. It is estimated that the sugar cane ground on 169 plantations amounted to 1,235,438,665 arrobas (arroba=25 pounds), and produced 1,505,231 tons of sugar, or an increase of 35 per cent as compared with the previous year.

The tobacco crop was nearly 500,000 bales of 120 pounds each, a decrease from last year's production. The Vuelta Abajo tobacco is the most famous leaf in the world, and has set the standard which all other cultivators must emulate. Other districts in which large quantities of tobacco are grown are either in the same Province of Pinar del Rio or in those of Havana and Santa Clara. Much of the crop is exported to such large factories as those of Tampa, Florida, or Hamburg, Germany, where it is manufactured into the so-called Havana cigars, but the factories in Havana consume large quantities of the native leaf and are equipped with all modern appliances for the production of both cigars and cigarettes.

The commission appointed by the President to study means to promote the tobacco industry and measures calculated to render more profitable and extensive tobacco cultivation has submitted a comprehensive report on this subject. One of the most important measures proposed by the commission is the installation of a general system of irrigation works in Vuelta Abajo. The commission regards this as urgent, and as the outlay for these works will be considerable, recommends that a definite scheme of annual appropriation for this purpose be settled upon, as well as the popularization of agricultural conferences, with practical demonstrations on the plantations of the best methods of the preparations of seed and appropriateness of such

seed for the particular soil and climate in which it is to be grown, together with the methods of fertilization, transplanting, crossing, and curing in accord with the most scientific processes.

Other suggestions are a law legalizing the introduction, manufacture, and sale of fertilizers, the encouragement of the immigration of agriculturists with families, and the removal so far as possible of the obstacles which limit or diminish the consumption of Cuban tobacco in the foreign markets by endeavoring to secure reciprocity treaties with nations which are large consumers of tobacco manufactured in the Republic.

The caravonica cotton is being cultivated experimentally in Cuba. Near Baracoa, in the most easterly part of the island, 1,500 feet above sea level, about 15 acres have been planted with caravonica "silk" and about 50 acres with caravonica "wool" cotton, the seed coming from Australasia. Samples of the product have been sent to experts in the United States and Europe, and the strength, gloss, and length of staple have been admired and praised. The conditions in many parts of the Republic are favorable for the cultivation of this cotton, and it is hoped that the cultivation of this article will grow into one of the most profitable and extensive industries of the country.

The extent of Cuba's fruit and vegetable industry is apt not to be grasped by the unobserving visitor to the island, who thinks of the two chief products, tobacco and sugar, as being the only ones worthy of mention. It was the mission of the Cuban Horticultural Society to correct this false idea with its splendid exhibits of fruits and vegetables displayed at the opening of the fair on February 2, 1910, in the city of Havana. The fruit-growing industry in Cuba is yet in its infancy. With scientific methods applied to the cultivation of citrus fruits and pineapples, Cuba should within a few years rival California as a fruit-growing country.

The shipment of Cuban-grown vegetables and fruits to the United States during the fiscal year 1908-9 consisted of 16,257 crates of onions, 3,255 crates of potatoes, 204,603 crates of tomatoes, egg plant, peppers, okra, squash, etc., 4,781 crates of alligator pears, mangoes, mamey, anon, etc., and 24,348 crates of oranges and grape fruit. New York took nearly all the onions, 53 per cent of the potatoes, 67 per cent of the tomatoes, 48 per cent of the special fruits, and 60 per cent of the oranges and grape fruit. Nearly all the rest went to Mobile and New Orleans for distribution to northern cities of the United States.

The total shipment of pineapples for the year ended June 30, was 1,263,466 crates of 80 pounds each. Of these, 862,844 were carried to New York; 207,613 to Mobile; 114,807 to New Orleans; and 78,202 to Knights Key. This pineapple crop was distributed from the ports of entry named to nearly all of the great cities east of the Mississippi River.

The cultivation of cacao in the island during the fiscal year 1907-8 was carried forward on 1,137 plantations with 1,960,246 trees, as compared with 745 plantations and 1,860,300 trees in 1906-7. The production declined noticeably in 1908, but in 1909 rose again to high figures. Cuba in that year was given fifteenth place in the world's production, the estimated crop being 4,288,000 pounds (1,940,000 kilograms).

Statistics of the live-stock industry of Cuba on June 30, 1909, published in the "Gaceta Oficial" for October 5, show the following distribution: Cattle, 2,936,549; horses, 523,702; mules, 57,310, and asses, 3,202.

The Province of Santa Clara occupies first place as a center of the country's stock, with 943,261 cattle, 129,351 horses, 10,044 mules, and 702 asses. In the Province of Oriente are 508,824 cattle, 138,465 horses, 14,684 mules, and 1,119 asses. Camaguey ranks third, with 493,692 cattle, 57,219 horses, 1,797 mules, and 248 asses. Matanzas has 378,675 cattle, 74,003 horses, 5,453 mules, and 306 asses. In the Province of Havana are 360,310 cattle, 82,145 horses, 15,603 mules, and 645 asses. Pinar del Rio has 251,787 cattle, 42,519 horses, 729 mules, and 182 asses.

Cuba has forest lands containing valuable cabinet woods, such as mahogany and cedar, besides dyewoods, gums, resins, and oils. Cedar is used locally for cigar boxes, and mahogany exported. Many other hard woods are used for railway sleepers, carts, furniture, and other purposes.

In the vicinity of Mariel there are large deposits of asphalt of an excellent quality. For a number of years this asphalt has been used in paving streets in the United States, and experiments made in London have also given good results.

The acquisition by the Bethlehem Steel Company of the United States of an important iron-ore deposit located near Santiago, Cuba, is a feature in the development of the mineral resources of the Republic. The ore beds have been measured up by engineers as embracing 75,000,000 tons, a peculiarity of the deposit consisting in the fact that it contains 2 per cent nickel and 1 per cent chromium. The tract covers an area of 875 acres and lies about 12 miles east of Santiago. It is regarded by experts as the most important discovery of iron-ore deposits made within twenty years.

Other large iron deposits, of recent discovery, are to be worked at Felton, Cuba. These mines are in the Mayari Mountains and are the property of the Spanish-American Iron Company. A large deposit of iron ore was also discovered in Sagua de Tanamo during the last half of the year.

During the fiscal year 147 mines, covering an area of 21,880 hectares, were surveyed in the Republic, 97 of which were in the eastern part of the island.

RAILWAYS AND INTERIOR WATERWAYS.

The extent of railways in Cuba is 3,728 kilometers (2,329 miles), which, in proportion to the size of the Republic, places it among the best-served countries in America. Cuba was one of the very first countries to build a railway, for there was a line put into operation in 1837, twelve years in advance of Spain, the mother country. There are four great systems which have stretched their lines almost from one extremity of the island to the other. Through trains run daily between Havana and Santiago, but over tracks belonging to three different systems, and many branch lines from this main trunk connect the principal ports on both the north and south coasts with the interior.

The four systems in Cuba are: The United Railways of Havana, the Cuba Railroad, the Cuban Central Railway, and the Western Railway of Havana. The first and last named have terminal stations in Havana.

The United Railways of Havana offers the first section of this through route, which extends as far as Santa Clara. It has also branch lines north and south, one of which runs to Batabano, where it connects with regular steamship service to the Isle of Pines. Other ports reached by this system are Matanzas and Cardenas, on the north, and the road is extended to within a few miles of Encarnacion, on the Bay of Cienfuegos.

The Cuba Railroad is the eastern system of the Havana-Santiago route, running between the last-named point and Santa Clara. It serves an immense and relatively new territory in the island, among the principal ports being Antilla, on Nipe Bay, which is becoming the center for American activity of all kinds.

The Cuban Central Railway runs from the ports of Concha and Caibarien, on the north coast, and connects these two ports with Cienfuegos, on the south coast. A portion of this system is used to form part of the through line from Havana to Santiago.

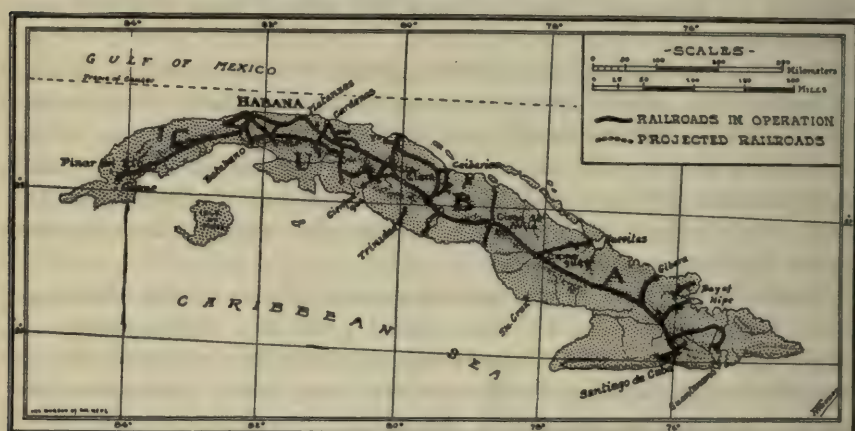
The main line of the Western Railway of Havana serves the famous tobacco district of Vuelta Abajo and extends through the Province of Pinar del Rio.

The Havana Central is an electric suburban line extending from Havana to Guines and Guanajay, each about 30 miles from the capital.]

All the railroads of the Republic are owned and operated by private companies, but the first railway above mentioned was originally projected by the Government. Although all the lines try to establish direct connections with Havana, the capital, yet that place is not the center of railway activity, because the tendency is becoming more pronounced to connect the main trunk line and distributing areas of the interior of the island with the nearest seaport. In this way the increasing production of Cuba can reach the consuming markets in

the quickest possible manner, and passengers as well as importations can be brought with the least inconvenience from foreign shores. Tourist travel is now getting so active in Cuba that every effort is made, both on the part of transportation companies and hotels associated with them, to offer such inducements as will make the journey to and through the island as comfortable and expeditious as either tourist or business man require.

There has been a steady improvement during the year in the maintenance and business of the various lines, although no decided additions to the mileage was made. A new railroad is about to be contracted for to unite the center of the island with Trinidad, on the south coast. The construction of another railroad, to connect Nuevitas with Caibarien, has been recommended by the President to the favorable consideration of the Congress.



MAP SHOWING RAILROADS IN OPERATION AND PROJECTED LINES IN CUBA.

Among the most important railway betterments is the recently completed passenger station of the Cuba Railway at Camaguey, an admirable edifice constructed of cement. This line has practically finished its work of substituting native hard-wood cross-ties for those of pine previously used. More than 87 bridges have been replaced by steel structures, and other provisional bridges have been repaired or strengthened.

The subsidy of 8,000 pesos per kilometer, which has been granted by the Government, has been of great assistance in the construction of certain branch lines into sparsely settled districts.

The lines from Manzanillo to Bayamo and from Bayamo to Palma Soriano, 250 kilometers in length, traverse the most fertile lands of Cuba and pierce mountains rich in deposits of such minerals as manganese, iron, copper, and other metals whose exploitation is now made possible by these new branches.

The annual report of the Cuba Railway for the year ended June 30 1909, showed gross earnings of \$2,157,165 and operating expenses of \$1,207,076, the net earnings figuring \$950,089. The cash surplus at the close of the year was reported as \$1,644,085.

The expenditures of the Provisional Government in the construction of macadamized roads was stated by President GOMEZ to have been \$9,448,170.52. The estimated cost of completing the 300 miles of road now under construction is placed at \$1,500,000.

Since the inauguration of President GOMEZ, numerous highways and bridges have been built in the Republic in the Provinces of Pinar del Rio, Havana, Matanzas, Santa Clara, Camaguey, and Oriente. The keeping of these roads in proper repair is an expensive item, experience having shown that about \$500 annually per kilometer is needed for this purpose. At the end of 1909 there were 1,461 kilometers of highways open to traffic, as compared with 1,180 for the previous year.

Although there are a number of rivers in Cuba, some of them with a considerable volume of water, they are usually too short and swift to be of any service to navigation. The largest of these, the River Cauto, is navigable for a distance of about 50 miles for light-draft vessels only, while the Sagua la Grande is navigable for about 20 miles, and several of the other streams are navigable only for a few miles inland.

MEANS OF APPROACH.

The island of Cuba is within easy reach of the United States, and numerous steamship lines ply regularly between the various ports of the two countries, as well as between Havana and European ports. Connection is also made by local steamers with many of the West India islands.

The principal port is Havana, but a number of other ports and bays afford excellent anchorage and shelter for ocean-going vessels, among which Matanzas, Nipe, Cienfuegos, Santiago de Cuba, and Guantamano are the most important.

Several steamship lines have regular sailings from New York for Havana and the other ports, making the run in from four to five days. There are also steamers leaving Boston, Norfolk, Mobile, New Orleans, and Galveston regularly for Havana. Steamers for the same Cuban port leave Tampa, Knights Key, and Key West, Florida, five times a week.

POSTS AND TELEGRAPHS.

The postal and telegraph services of Cuba have undergone a radical transformation during the past decade. There are now 472 post-offices in the island, and these are being constantly added to. There are 171 telegraph stations belonging to the National Government and 9 wireless stations. The equipment and administration of

both the wire and wireless offices maintained by the Government is excellent. There are 180 postal routes; 40 of these are rail routes, 14 maritime routes, 102 by mounted carriers, and 18 are transfers.

The Universal Postal Convention of Rome was put in force by the Cuban Government October 1, 1907. The adoption of this convention by Cuba fixes the postage on letters addressed to foreign countries (with the exception of the United States and Mexico, to which the rate is 2 cents an ounce) at the rate of 5 cents for the first ounce and 3 cents for each additional ounce or fraction thereof.

A postal money-order agreement between Cuba and the Republic of Mexico became effective October 1, 1909.

Great improvements have been made in the telegraph service during the past year. Many lines have been repaired, and not a few new lines have been either built or are now under process of construction.

Wireless stations are maintained at Pinar del Rio, Santa Clara, Morro Castle, Havana, Nueva Gerona, Isle of Pines, Camaguey, Baracoa, Santiago de Cuba, and Bayamo.

EDUCATION.

No other public department of the Government receives more attention than that of education. The Secretary of Public Instruction is a member of the Cabinet, and his office is considered one of the most important in that body, which exercises the greatest care to maintain in the educational department a worthy and competent personnel.

A fair proportion of the general budget of the nation is dedicated to public instruction. There are kindergartens, primary and secondary schools, normal schools, a school of painting and sculpture, and a school of arts and trades. Besides these, there are numerous private schools in all branches. The highest form of education in the Republic is given at the University of Havana, which was opened in 1728.

No modern idea, device, or implement is to be missed in a Cuban school; the objective system has been implanted in all, and the scholars receive, besides a practical and useful elementary education, a solid and greatly beneficial course of moral and civic instruction.

The grade of perfection attained by the Cuban schools was shown at the exposition in St. Louis, when numerous prizes were awarded the work done in the island.

At the close of the year there were 2,171 schools, with 3,613 teachers and an enrollment of 132,740 pupils, with an average attendance of 98,489.

GENERAL INFORMATION.

The Government of Peru has entered into a contract with a large tobacco company, of Havana, Cuba, by the terms of which the Havana firm is granted the exclusive right to sell cigars and cigarettes

in Peru. The contract requires a certain standard of quality and specifies that the company shall sell at certain fixed prices. The initial order placed in Havana is for 43,700,000 cigarettes, and 271,000 cigars.

On June 10, 1909, the Ambassador of Brazil and the Minister of Cuba celebrated an arbitration treaty, which has been submitted to the Senate for ratification.

Negotiations are pending for the attainment of closer commercial relations with Uruguay, Venezuela, and Spain by means of commercial treaties and pacts.

The new Cabanas tunnel, which forms a part of Havana's modern sewer system and through which one of the main drains of the city will pass, carrying off the sewerage to the sea, has been completed.

Over a year ago the Cuban Engineering Company undertook to provide Havana with a first-class modern sewer system. Work was begun by the laying of pipes in the suburban districts, the greatest difficulty being encountered in laying the pipe lines for the main drains in the city proper. This difficulty was increased by the fact that the soft spongy rock which forms the foundation of the city in many parts must first be excavated, as the new rock is laid on a solid foundation about 20 feet below the surface. The base of concrete is laid in a horizontal frame. Above this wall is built a brick floor, and the walls when vertical will have a concrete shell and brick lining. A short distance above the floor the walls curve over in an arch of concrete construction.

The dredging of the port of Cienfuegos was completed in May, 1909, It is expected that \$300,000 will be needed for the dredging of Isabela de Sagua.

As outlined in a public statement by the Cuban Secretary of Agriculture, Commerce, and Labor, the purposes of the Government are to develop in every way possible the agricultural resources of Cuba. In the draft of the budget for 1910-11, expenditures on account of the department are placed at \$2,487,000. Of this sum, \$112,200 are to be expended for the maintenance of six agricultural schools, one in each province, as created by the act of July 12, 1909. Cattle breeding is to receive \$100,000, and a like sum is set apart for the holding of an agricultural and industrial exposition. Private experiment farms are to be subsidized to the amount of \$30,000; \$20,000 are to be expended for the purchase of plants and seeds, and \$40,000 are designed to aid Cuban inventors lacking necessary funds for the perfecting of their patents, when, in the opinion of the Government, such inventions are of public utility.

DOMINICAN REPUBLIC

GEOGRAPHICAL SKETCH.

The Dominican Republic, occupying the eastern and larger half of the island of Santo Domingo or Haiti, has a total area of 19,325 square miles and at the end of 1908 had a population of 673,611 inhabitants. Its area is thus equal to that of the States of Maryland, Connecticut, and Rhode Island, while its density of population is 34 per square mile, or considerably more than that of the United States.

The island is the second largest of the Antilles, lying between Cuba and Porto Rico, separated from the former by the Windward Passage and by Mona Passage from the latter. Its territory is divided between the Dominican Republic and the Republic of Haiti.

Its topography shows numerous elevations forming four almost parallel mountain ranges which considerably modify the otherwise tropical climate, and together with the sea breezes give Santo Domingo a most delightful and pleasant climate. Mount Tina, 10,300 feet above sea level, is the highest peak on the island and in the West Indies.

Nearly all of the fruits of the Tropics and many of the Temperate Zone are successfully grown on the island. Cacao, sugar, coffee, bananas, and other fruits, and cabinet, structural, and dye woods, among the latter the well-known divi-divi, are largely exported.

Copper mines are worked to some extent. Iron, gold, nickel, chrome, cobalt, silver, mercury, tin, coal, asbestos, phosphate, petroleum, amber, and guano are also found in the island. Salt is produced in abundance.

HISTORICAL SKETCH.

COLUMBUS on his first voyage having discovered Guanahani and Cuba, first sighted Santo Domingo on December 6, 1492, and taking possession of the island in the name of the King of Spain called it "La Isla Española" or Hispañola, because of its similarity to certain regions of Spain.

The territory now forming the Dominican Republic was then occupied by an inoffensive, peaceable race of Indians who had divided the island into five kingdoms, and whom the Spaniards easily subdued and enslaved.

Santo Domingo for more than a century formed the basis of operations for the Spanish explorers and conquistadores, and the capital of the present Dominican Republic may justly claim to have been the metropolis of the vast colonial empire of Spain.

The hard work and cruel treatment to which the Indians were subjected caused them to die in large numbers, so that the introduction

of slaves from Africa was begun as early as 1517, when 4,000 were brought over in one year.

During the sixteenth and seventeenth centuries French, Dutch, and British buccaneers established themselves in the West Indies, first on St. Christopher and afterwards on Tortuga, lying a few miles off the northwest coast of what is now the Republic of Haiti. In 1630 these buccaneers, mostly French, invaded the adjoining island and planted a colony of such importance on Santo Domingo that the protection of the home Government was sought and obtained. A period of constant strife ensued between the French and other settlers, until by the treaty of Ryswick, in 1697, France obtained possession of the western half of the island, and, by the treaty of Basel, in 1795, of the eastern or Spanish half, thus gaining possession of the entire island.

In the year 1809, Spain and England, being at war with France, the Spanish colonists uprose and aided by British forces captured the city of Santo Domingo on July 11, and Spanish rule was once more established.

In 1821 the inhabitants of the Spanish part of the island declared their independence of Spain and desired their country's incorporation as a State of Greater Colombia, hoping to secure the assistance of SIMON BOLIVAR. Colombia could not assist the new State and so JEAN PIERRE BOYER, President of Haiti, in 1822 was able to extend his government over the whole island. The Haitian dominion lasted until the year 1844, when, on February 27, the people rose in arms against the Government and in 1846 again established an independent State.

In the year 1861, through constant fear of foreign invasion, the Republic appealed to Spain for protection, and on March 18, 1861, was formally annexed to that country. This rule, however, soon became intolerable and a revolution, initiated at Capotillo on August 16, 1863, resulted in the restoration of the Dominican Republic, the Spanish Crown relinquishing all claim to the country on May 1, 1865.

Gen. RAMON CACERES, the present incumbent of the Presidency, was inaugurated on July 1, 1908, for a term of six years.

CONSTITUTION AND GOVERNMENT.

The present constitution of the Dominican Republic went into effect on April 1, 1908. It provides for a republican, democratic, and representative form of government, divided into three branches, legislative, executive, and judicial. The National Assembly is composed of two branches, the Senate and Chamber of Deputies. Senators are elected one for each province, 12 in all, by indirect vote for a term of six years. To be a Senator one must be a Dominican by birth or origin; be in possession of his civil and political rights, and be 35 years of age. As in the United States, the Senate is renewed one-third every two years. Deputies are elected in proportion to the

population by indirect vote for a term of four years, the Chamber being renewed one half every two years. To be a deputy one must be a citizen; be over 25 years of age; be a native of the Province which elects him, and be or have been living (a resident) there for at least one year. Naturalized citizens can not be elected until eight years after they have acquired citizenship.

In the President, assisted by a Cabinet, is vested the executive authority of the Republic. He is elected for a term of six years by indirect vote, and is allowed a salary of \$10,800 per annum. The Cabinet is composed as follows: Minister of Interior and Police, Minister of Foreign Affairs, Minister of the Treasury and Commerce, Minister of War and Marine, Minister of Justice and Public Instruction, Minister of Agriculture and Immigration, Minister of Fomento and Communication.

The judiciary is composed of a Supreme Court sitting at Santo Domingo, two courts of appeals, located at the capital and Santiago, respectively, and lesser tribunals throughout the Republic, courts of first instance, and in the various municipalities.

INTERIOR GOVERNMENT.

For administrative purposes the Dominican Republic is divided into 12 provinces, which are subdivided into communes. The provinces are administered by a governor, appointed by the President of the Republic, as are also the chief executive officers of the other political divisions. To be a governor or chief of commune one must be a Dominican over 25 years of age, and in possession of his civil and political rights. Naturalized citizens can not be governors until eight years after obtaining citizenship. A Municipal Board, elected by direct vote, represents the people in the various municipalities, who regulate the budgets, vote upon improvements, and in general cooperate with the executive head of the commune.

The following are the provinces and districts, with their respective capitals:

Province of—	Capital.
Santo Domingo.....	Santo Domingo. ^a
Seybo.....	Santa Cruz del Seybo.
Azua.....	Azua.
Santiago.....	Santiago de los Caballeros.
Españolat.....	Moca.
Le Vega.....	Concepcion de la Vega.
San Pedro Macoris.....	San Pedro Macoris.
Barahona.....	Barahona.
Samana.....	Santa Barbara de Samana.
Pacificador.....	San Francisco de Macoris.
Puerto Plata.....	San Felipe de Puerto Plata.
Monte Cristi.....	San Fernando de Monte Cristi.

The principal cities, with population, are: Santo Domingo, 20,000; Puerto Plata, 17,500; Santiago, 12,000; Macoris, 15,000.

^a Also capital of the Republic.

ARMY AND NAVY.

The active army of the Dominican Republic consists of 6 companies of artillery, most of which are usually kept at Santo Domingo. The different provincial governors or commandants have at their disposal a small contingent of soldiers and such part of the rural guard as may have been assigned to their provinces. The personnel of the army numbers about 1,300 men. The rural guard is composed of 906 officers and men.

The Republic has one steel gunboat of 1,000 tons, a cruiser, and four revenue cutters carrying Hotchkiss quick-firing guns.

THE DOMINICAN REPUBLIC IN 1909.

In his annual message to the Dominican Congress, on February 27, 1910, President CACERES stated that the year 1909 marked an epoch in the history of the Republic as regards prosperity and progress.

Cordial relations were maintained during the year with all foreign nations, and especially with the neighboring Republic of Haiti, with which country an extradition treaty and referendum was celebrated. In November, 1909, an extradition treaty with the United States became effective.

Notwithstanding the fact that the foreign commerce of the Republic in 1909 was \$1,624,659 less than that of 1908, the country as a whole was prosperous, the decline in the volume and value of foreign trade having been largely due to the suspension of shipments of staple Dominican products during the closing months of the year, inasmuch as shippers preferred to await the application of the new tariff which became operative January 1, 1910, under which the export tax on cacao, hitherto the most important export product of the Republic, was reduced 50 per cent. An encouraging feature of the year was a very substantial increase in two of the principal crops of the Republic, sugar and tobacco, as compared with the production of 1908, sugar now occupying the first place in importance in the export products of the country.

Trade with the neighboring Republic of Haiti was more active in 1909 than in former years, a considerable number of cattle on the hoof, driven from the fertile grazing lands of the Dominican Republic, having been marketed in Haiti. More than half of the total foreign commerce of the nation in 1909 was transacted with the United States, which now occupies the first place in the export and import trade of the country.

From the customs revenues collected in 1909 the sum of \$1,200,000 was set aside to meet interest and amortization payments on the foreign debt, a somewhat smaller amount than was used for the same purpose in 1908.

The important railway events of the year 1909 were the termination of the section of the Central Dominican Railway between Santiago and Moca, the opening of the same to public traffic, and the connecting by rail of Salcedo with Puerto Sanchez. Within a short time railway communication will be established between the northern and southern ends of the Republic, thereby rendering easy of access and opening up to exploitation a large area of rich sugar, tobacco, and grazing lands.

President CACERES recommends the early enactment of a law by Congress which will have for its object the encouragement of immigration by the sending of Dominican agents to foreign countries to contract with prospective immigrants to the Republic, and to pay the passage of such persons as indicate their desire to become bona fide settlers.

FINANCE.

The revenue receipts for the year 1909 amounted in all to \$4,523,-160.26. Of this sum \$3,862,173.49 was from ordinary taxation and \$660,986.77 represented financial transactions.

Of the ordinary revenues the principal receipts were as follows:

Customs duties.....	\$2, 936, 759. 77
Spirit excises.....	281, 589. 35
Central Railway.....	247, 047. 09
Port duties.....	105, 045. 84
Stamp tax.....	101, 397. 43
Stamped-paper tax.....	57, 844. 71

The expenditures for the year were \$4,532,322.50, which were divided among the following departments:

Legislature.....	\$93, 132. 62
Executive Department.....	27, 112. 99
Department of Interior and Police.....	487, 545. 01
Department of Foreign Relations.....	76, 614. 67
Department of Treasury and Commerce.....	1, 868, 096. 65
Department of War and Marine.....	716, 572. 71
Department of Justice and Public Instruction.....	355, 010. 98
Department of Agriculture and Immigration.....	15, 256. 21
Department of Fomento and Communications.....	355, 726. 34
Refunds on exports, etc.....	79, 969. 98
Special public works, printing, and sundries.....	457, 284. 34

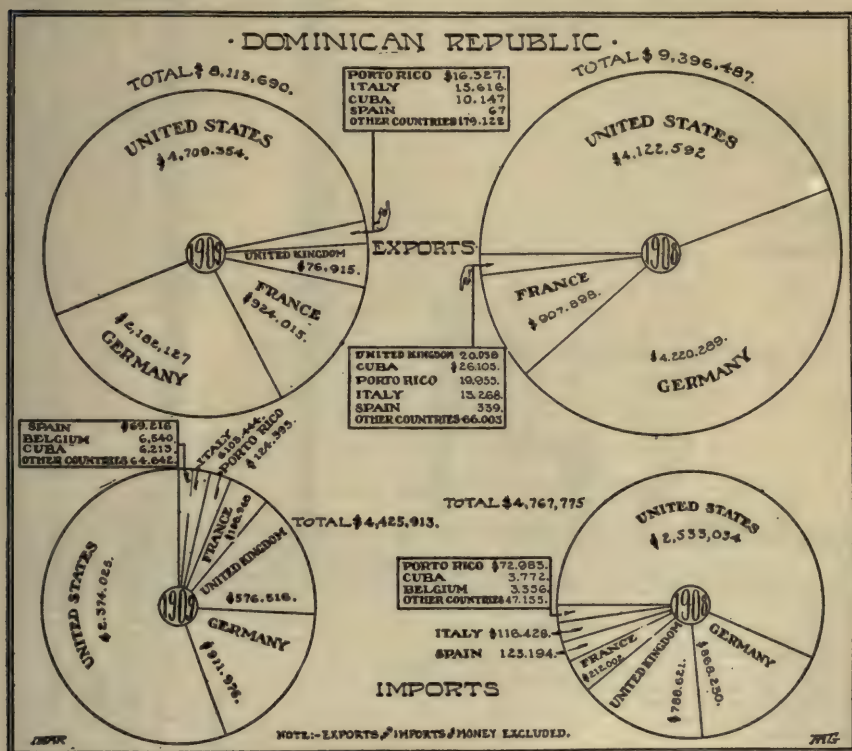
4, 532, 322. 50

According to the plan of adjustment of the Dominican debt, the total authorized issue of 5 per cent customs administrative sinking fund gold bonds will be \$20,000,000. Of this amount there had been issued up to the 31st of December, 1909, \$15,743,166.87. The amount of the old obligations canceled thereby is \$28,015,335.44. There yet remains about \$3,000,000 of indebtedness to be adjusted under the plan, for which obligations approximately \$1,400,000 will be necessary in settlement.

COMMERCE.

The foreign trade of the Dominican Republic for the year 1909 amounted to \$12,822,708; imports, \$4,645,378; and exports \$8,177,330. The figures for 1908 were: Imports, \$5,127,463; exports, \$9,486,344; total, \$14,613,807. The loss in trade for the year was therefore \$1,791,099—\$341,862 in imports and \$1,309,014 in exports. The total amount of trade was about the same as for the year 1907. The loss therefore represents the gain made in 1908.

The decline in the foreign trade is explained by the diminution in both the amount and value of cacao production, one of the principal



products of the Republic, and destined, perhaps, to be the principal product. There was a loss in the export of this article alone for the year 1909 as compared with the preceding year of 9,233,576 pounds, representing a loss in value of \$1,509,856. This decline in one of the principal items of export is answerable for the decline in imports, reducing as it did the purchasing power of the producing class. The decline in cacao production was due to two causes—the appearance of an insect pest heretofore not known in the Republic and unfavorable weather conditions. However, the loss was not quite so great as the export figures seem to indicate. In the latter months of

1909 the question of a new tariff was agitated, which was expected to reduce the export duty on cacao. Such a law was enacted on November 23, 1909, to go into effect January 1, 1910. According to the new tariff, the export duty on cacao was reduced to \$1 per 100 kilos, gross weight. As a consequence of this legislation, considerable shipments of cacao were held up until after the new law went into effect.

By countries of origin the imports for the years 1908 and 1909 were as follows:

Country.	Value.	
	1908.	1909.
United States.....	\$2, 891, 722	\$2, 593, 490
Germany.....	868, 230	911, 976
United Kingdom.....	788, 621	576, 516
France.....	212, 002	188, 948
Puerto Rico.....	72, 983	124, 393
Italy.....	116, 428	103, 444
Spain.....	123, 194	69, 216
Belgium.....	3, 356	6, 540
Cuba.....	3, 772	6, 213
Other countries.....	47, 155	64, 642
Total.....	5, 127, 463	4, 645, 378

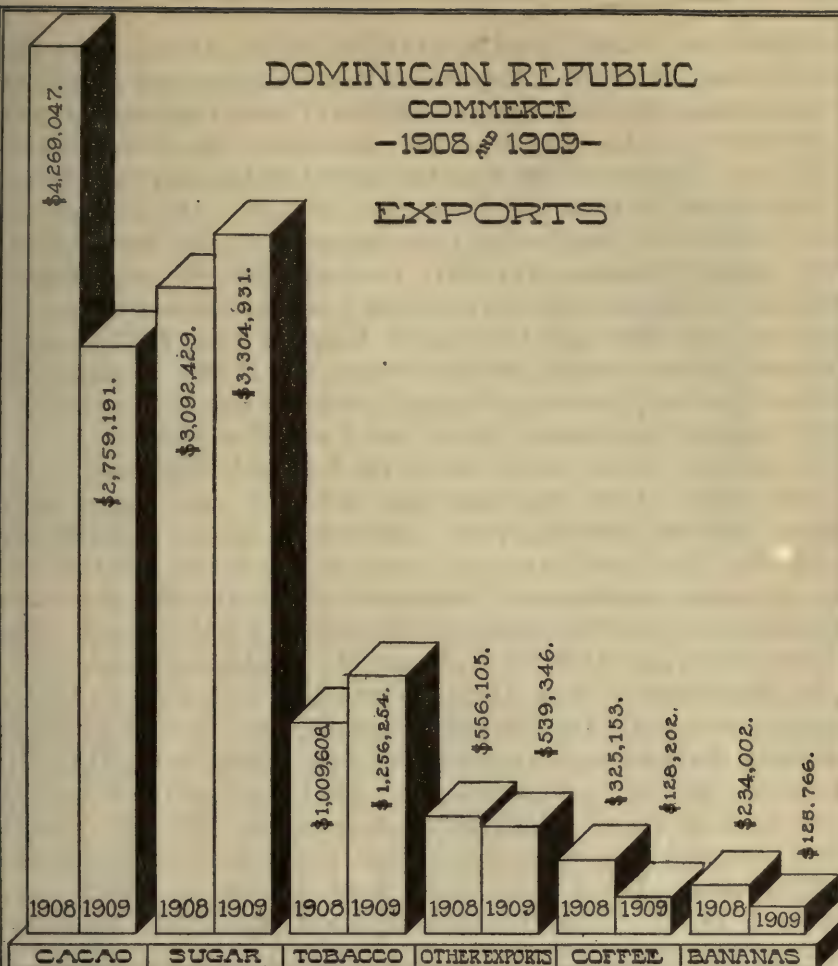
The principal articles of import were as follows:

Articles.	Value.	
	1908.	1909.
Cotton manufactures.....	\$1, 186, 551	\$925, 970
Iron and steel manufactures.....	605, 246	609, 416
Rice.....	360, 728	414, 271
Flour.....	308, 071	309, 282
Meat and dairy products.....	245, 371	242, 055
Oils.....	241, 341	226, 065
Money.....	359, 688	219, 465
Wood manufactures.....	150, 841	153, 600
Leather and manufactures.....	112, 220	140, 751
Vegetable fiber manufactures.....	186, 954	128, 776
Preserved fish and fish products.....	121, 726	108, 453
Chemicals, drugs and dyes.....	96, 388	88, 307
Sugar and confectionery.....	107, 718	79, 055
Malt liquors.....	64, 678	68, 702
Soap.....	63, 520	68, 669
Soap grease.....	44, 684	58, 569
Paper manufactures.....	43, 906	52, 846
Vehicles.....	41, 859	49, 341
Wines and spirits.....	47, 752	45, 264
Wool and manufactures.....	49, 155	41, 079

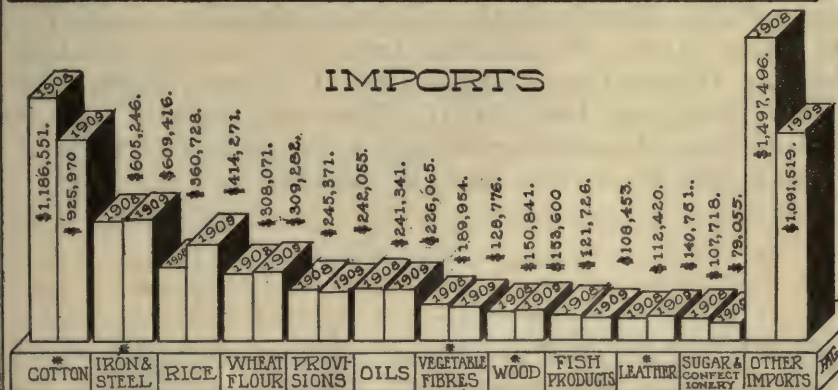
The import of flour for the year 1909 from the United States was 51,913 barrels, worth \$305,122. The principal countries contributing chemicals, etc., were: The United States, \$57,578; France, \$21,994; and Germany, \$4,430. The cotton manufactures came principally from the United States, \$389,286; United Kingdom, \$342,277; Germany, \$90,809; and France, \$38,669. Of these countries, the loss compared with the preceding year was: For the United States about

DOMINICAN REPUBLIC COMMERCE -1908 and 1909-

EXPORTS



IMPORTS



* MEANS MANUFACTURES OF

EXPORTS AND IMPORTS OF MONEY EXCLUDED.

DIAGRAM SHOWING VALUES OF THE LEADING EXPORTS AND IMPORTS OF THE DOMINICAN REPUBLIC IN 1909 AS COMPARED WITH 1908.

\$115,000; the United Kingdom, \$124,000; France, \$4,500; and a gain for Germany of \$3,000. Vegetable fibers were imported as follows: United States, \$49,332; Germany, \$39,343; United Kingdom, \$34,277.

Nearly all of the preserved fish came from the United States, \$102,100. Soap stock was from the United States and Porto Rico—United States, \$40,965, and Porto Rico, \$17,586. In iron and steel manufactures the four leading countries were: United States, \$385,221; United Kingdom, \$141,381; Germany, \$62,885; and France, \$11,165. Compared with the preceding year, the United States trade declined only \$250 and the United Kingdom over \$25,000, while Germany gained over \$22,000 and France over \$7,000. Leather and leather manufactures were principally from the United States, \$121,889; Germany contributed \$6,615, and Porto Rico \$4,545.

Of the malt liquors, which was in the form of bottled beer, 35,644 dozen, valued at \$57,035, came from Germany, or a loss of about \$1,000 from the preceding year. About 5,304 dozen, worth \$8,155, came from the United States, or a gain of over \$3,000. France was the principal contributor of wines and spirits, \$18,409; then came Germany, with \$8,792; Spain, with \$7,595; and Italy, \$7,424. The United States sent \$199,540 in oils out of a total given above.

In manufactured paper, Germany was first, with \$25,891; United States second, with \$19,598; and France, \$3,120. In meat and dairy products, the three leading countries were the United States, \$114,231; Germany, \$69,320; and Porto Rico, \$26,723. Nearly all the rice came from Germany, 18,327,092 pounds, worth \$391,546. Nearly all of the soap was from the United States, as was also the sugar and confectionery. The United States sent \$43,040 in vehicles and Germany \$5,523. This was a gain for the United States, compared with the preceding year, of about \$15,000, and a loss to Germany of nearly \$7,000. Practically all of the wood manufactures were from the United States. Wool manufactures were imported as follows: Germany, \$15,033; United Kingdom, \$10,917; France, \$5,766; United States, \$3,996; and Italy, \$3,711. There was imported from the United States gold and silver currency to the value of \$219,465.

The exports for the two years, by countries, were as follows:

Country.	Value.	
	1908.	1909.
United States.....	\$4,212,449	\$4,764,994
Germany.....	4,220,289	2,190,127
France.....	907,898	924,015
United Kingdom.....	20,038	76,915
Porto Rico.....	19,955	16,327
Italy.....	13,268	15,616
Cuba.....	26,105	10,147
Spain.....	339	67
Other countries.....	66,003	179,122
Total.....	9,486,344	8,177,330

The exports by articles were as follows:

Articles.	Value.	
	1908.	1909.
Sugar.....	\$3,092,429	\$3,304,931
Cacao.....	4,269,047	2,759,191
Leaf tobacco.....	1,009,608	1,239,486
Coffee.....	325,153	128,202
Bananas.....	234,002	125,766
Wax.....	123,690	123,769
Hides of cattle.....	68,882	70,996
Money.....	89,857	63,640
Goatskins.....	53,889	60,361
Honey.....	18,229	43,045
Drugs and dyes.....	53,804	38,060
Lignum-vitæ.....	16,990	34,829
Live animals.....	575	33,765
Cigars and cigarettes.....	14,573	16,768
Mahogany.....	17,051	10,981
Other woods.....	37,358	78,567
Sisal and other fibers.....	19,102	10,707
Copra.....	2,613	5,812
Gums and resins.....	9,399	2,208
Cocoanuts.....	3,697	1,638
All other exports.....	26,396	24,608
Total.....	9,486,344	8,177,330

In 1908 there was exported to Germany 28,497,193 pounds of cacao, valued at \$2,895,630, and to the United States 6,716,746 pounds, valued at \$637,946. In 1909 the position of these two countries as purchasers of cacao was reversed. The United States took 14,080,993 pounds, worth \$1,251,104, and Germany 9,641,372 pounds, worth \$741,606. In 1909 France took a large percentage of high-grade cacao from the Dominican Republic, 8,917,949 pounds, worth \$763,529. It is probable that part of the 1909 cacao import into the United States eventually found its way to Europe, since a considerable quantity is shipped to New York "on order."

All the drugs and dye materials went to the United States and Germany in about the proportion of three-fifths and two-fifths. The bulk of the cocoanuts went to Germany. Of the coffee exports, France took \$46,760; Germany, \$39,690; United States, \$26,231; and Italy, \$15,169. Practically all of the copra went to Germany, and about three-fifths of the gums and resins. Nearly all the goatskins were exported to the United States and most of the cattle hides to Germany. Germany was the principal purchaser of honey, taking \$27,777 worth. Cuba was the principal purchaser of sisal and other fibers. All the raw sugar, with the exception of about \$150,000 worth, went to the United States.

All of the leaf tobacco was exported to Germany, excepting small amounts for France and the United States. The United States was the largest purchaser of cigars. Of the beeswax exports, Germany took \$72,176; France, \$22,589; and the United States, \$20,899. The mahogany exports went to Germany, the United States, France, and the United Kingdom in nearly equal quantities. The lignum-vitæ

was taken principally by the United Kingdom, \$20,305; Germany second with \$8,427. Other woods were exported principally to the United Kingdom, the United States, and Germany. There was exported to the United States gold and silver currency to the value of \$55,640 and to Germany to the value of \$8,000.

INDUSTRIES.

The chief products of the Republic in the order of their importance are cacao, sugar cane, tobacco, coffee, and bananas. Of these it has heretofore been possible to cultivate sugar cane alone in an entirely satisfactory manner. The other industries have suffered greatly from lack of sufficient capital and proper kind of agricultural machinery necessary for their cultivation if the best results are to be obtained.

Cotton growing has been undertaken within the last two or three years, in the Province of Monte Cristi, with excellent results. Long-staple varieties are generally planted, and the yield is enormous, and as the quality is of a high grade, the article meets a ready sale in Europe. With the aid of modern agricultural methods and machinery, cotton-growing in this Province is probably destined to be one of the best investments for capital in the country.

The annual output of cigars and cigarettes manufactured in the Republic is constantly increasing, and the tobacco growers of the nation are making earnest and continued efforts to improve the methods of cultivating the plant and curing the leaf. A great improvement in the quality of the product will necessarily follow within the next few years. Most of the manufactured product is consumed in the country. All the regular sizes and shapes of cigars are made, and the prices range from 1 cent to 10 cents each.

At present there are four thoroughly equipped and modern cigarette factories, with a daily capacity of more than 1,000,000 cigarettes, and those manufactured are of excellent quality. One of the large factories has its own lithographing plant. Cigarettes are put up 12 to the package and 1,400 packages to the case. They retail in the country at 2 cents a package. Considerable quantities of Dominican cigarettes have been shipped to St. Thomas, and their popularity is rapidly increasing throughout the West Indies and the neighboring republics.

The most important minerals found in the Dominican Republic are gold, silver, iron ore, copper ore, lignite, salt, and petroleum. Gold is the only mineral that has been worked to any extent. In the time of Columbus the Indians paid tribute in gold, and in the year 1496 the records show the following mines or placer workings: La Vega, the Cibao, the San Cristobal, and the Buenaventura. A considerable quantity of gold is at the present time washed from the sands of the Yaque, Verde, Bao, Jaina, and Mao rivers and their tributaries

by the country people with the most primitive apparatus. It is claimed that women often obtain 2 or 3 ounces of gold per week in this manner. Lodes and gold-bearing quartz are mentioned in some of the old reports, but no record can be found of any attempt to work these mines systematically. In fact, none of the mining men now in this country claim to have located quartz veins that would pay for the working.

There is no doubt that there exist gold deposits in the river beds and also in the hills which have never been worked, and there is probably considerable gold remaining in the old workings which could be saved by modern machinery and dredges. The conditions for working are good, there being abundant water and sufficient fall for drainage in most parts of the gold country.

The Government of the Dominican Republic, through its Department of Agriculture, is studying methods to promote the raising of cattle and more extensive agriculture. It is proposed to put new life into the stock-raising industry by the importation of blooded animals for breeding purposes. Information on the most advanced ideas, rotation of crops, and seed selection will be furnished to the different agricultural districts with a view to encouraging more intensive cultivation of the soil. The project under consideration includes a Bureau of Cultivation, which will cooperate with the agricultural schools and experimental stations in order to better the quality as well as increase the quantity produced.

A law signed by President CÁ CERES on September 4, 1909, has for its purpose the development of agriculture in the Dominican Republic. A general board of agriculture is created under the Department of Agriculture and Immigration. This board will be charged with the supervision of all schools of agriculture in the Republic, both general and private. An agricultural laboratory and experiment station are to be established and means taken to increase the distribution of agricultural literature. Each year an agricultural fair is to be held, at which prizes for products will be offered.

An important feature of the law is that the Executive is authorized to import for sale at cost price fertilizers, insecticides, and the implements or machinery necessary for their application. All articles destined for agricultural use are admitted into the Republic without the payment of import dues.

RAILWAYS AND INTERIOR WATERWAYS.

The railways of the Republic have an extent of approximately 175 miles (282 kilometers). Besides these, there are about 225 miles (362 kilometers) of private lines in the large plantations.

A law of the Dominican Government provides that 30 per cent of the internal revenues be applied to the payment of interest on

capital invested in the building of railroads, whether by private corporations or borrowed by the Government. It further provides that interest may be paid up to 6 per cent; that a bonus of \$2,000 be allowed for each kilometer constructed, and that this portion of the revenues shall not be used for any other purpose.

The Dominican Central Railway, which formerly belonged to an American company, became, by virtue of a contract made by the Government in February, 1908, the property of the Republic. This road connects the two important cities of Puerto Plata and Santiago and has a length of 42 miles, 28 of which run through broken and mountainous lands.

The Santiago to Moca railway, which may be considered an extension of the Puerto Plata to Santiago railway, has just been



completed and runs from Santiago to the Moca River, a distance of 16 miles.

In regard to railway progress in the Republic, President CÁCERES reports in detail concerning lines which are now being constructed. He states that the Central Dominican Railway, which includes the branch from Santiago to Moca, has been completed and has been thrown open to traffic. A line has been constructed which unites Salcedo and Puerto de Sanchez, and this will eventually be extended to Moca. In connection with the project for the construction of new railway lines, Congress is asked to appropriate funds for a line to run from Santo Domingo across the Republic to the interior of Cibao, and thus give direct communication between the south and north of the Republic.

The Dominican Government is considering the construction of a new railway line from the base of San Marco Hill, near Puerto Plata,

to Bajabonico. The proposed railway will be a loop line to the Central Dominican Railway, and when completed will enable traffic to be diverted, through the loop, from the section of the former line, which is worked on the rack system.

Santo Domingo, the capital of the Republic, is situated at the mouth of the Ozama River, which is navigable for a considerable distance inland, as are also the rivers Yaque, Yaque del Sur, Yuna, Iguamo, and several others, some of them, however, only for vessels of light draft.

MEANS OF APPROACH.

The Dominican Republic has a number of splendid bays and inlets, forming excellent natural harbors and affording anchorage and shelter for the largest ocean-going vessels. The principal ports are Puerto Plata, Sanchez, Santo Domingo, Macoris, Samana, Monte Cristi, and Barahona. The magnificent bay of Samana, also called "Golfo de las Flechas," is 40 miles in length, with an average width of 15 miles, is fully protected from the winds and storms, and is one of the finest natural harbors of the world. The Bay of Neiba is 15 miles long, with an average width of 10 miles, and likewise affords safe anchorage for the largest ocean-going ships, as do also the bays of Ocoa, Manzanillo, and several others.

There is a regular line of steamships running from New York to the ports of the Dominican Republic: Monte Cristi, Puerto Plata, Samana, Sanchez, Macoris, Santo Domingo, and Azua, sailing every second week from New York. Monte Cristi is, geographically and usually, the first port of call, and the others follow in the above order.

A Cuban line connects Dominican ports with Cuba, Porto Rico, St. Thomas, and other West Indian points.

There are French, German, and other steamers connecting the ports of the Republic with Europe.

POSTS AND TELEGRAPHS.

There are in operation in the Republic 81 post-offices, which, during 1909, handled 857,779 pieces of mail matter. Mail communications with the interior are satisfactory, postal routes being traversed daily or weekly, according to the distance from the respective capital cities.

The Secretary of Fomento and Communications, in his annual report for 1909, states that the Director-General of Posts has been making a tour of inspection of the offices under his jurisdiction and that one of the more important incidents of his tour would be the installation of modern post-office furnishings and appliances, recently imported from the United States, in some six of the more important post-offices.

The telegraph and telephone lines are 1,269 miles in extent and comprise about 52 offices. The lines belonging to the State trans-

mitted 2,501,000 messages during 1909, and received 13,666 pesos, national money, for the service.

The Government contracted last year for the installation of a system of wireless telegraph stations in the Republic. The first station was to be erected at a cost of \$8,450, and smaller stations at other points at a cost not to exceed \$2,765 each. When the system has been completed communication can be established with all the surrounding islands.

EDUCATION.

The matter of public instruction receives the particular attention of the Government. In accordance with the provisions of the budget the Academy of Drawing, Painting and Sculpture was established in the capital in December, 1908. This institution, for which \$3,000 was appropriated, is under the joint control of the Department of State and that of Justice and Public Instruction. The academy is open to both sexes and makes no charge for tuition. A graded course of instruction has been adopted covering a period of four years, and provision is made for both day and night classes.

At the beginning of 1909 there were 440 schools in the Dominican Republic with an attendance of 16,000 pupils.

GENERAL INFORMATION.

A new sanitary law was recently promulgated, and the departmental authorities empowered to import, free of duty, such articles of public utility as are designed for the services of hygiene and sanitation, instruction, and general development.

The Bureau of Statistics of the Dominican Republic was established under the law of May 28, 1909. The law provides for an immediate establishment of sections of demography, census, sociography, also commercial and administrative sections, and for such other sections in future as may be needed in the compilation of the statistics of the Republic.

The budget law of the Dominican Government for the fiscal year 1909-1910 estimates a balance of receipts and expenditures in the sum of \$4,024,230. Receipts from customs are estimated at \$3,210,000; internal revenues, \$460,000; posts and telegraphs, \$35,000; consular fees, \$15,000; stamped paper, \$43,000; and receipts from certain state properties, \$261,230.

On June 12, 1909, the Committee on Foreign Relations of the Dominican Congress made an interesting report, in which it was stated that the relations of the Government with foreign nations were most cordial and friendly. The diplomatic representation of the Republic consisted of ten legations, four of which had the following accredited representatives: The United States, a Minister Resident; Haiti, an Envoy Extraordinary and Minister Plenipotentiary; Germany, an

Envoy Extraordinary and Minister Plenipotentiary; and Cuba, a chargé d'affaires. The legations in Italy, at the Holy See, in Mexico, Venezuela, and Guatemala had no representatives. The consular service consisted of 25 consuls-general, 92 consuls, 49 vice-consuls, and 10 chancellors.

The extradition treaty with Cuba, now in force, has given excellent results. The Dominican chargé d'affaires in Havana has proposed the celebration of a postal treaty between the two countries, and a parcel-post and money-order service.

High praise was accorded the report of the Dominican Delegate, Mr. TITO V. LISONI, to the Fourth Pan-American Scientific Congress, on the history, geography, political organization, agriculture, commerce and industry of the Dominican Republic, for which Mr. LISONI received a vote of thanks from said Congress.

On September 29, 1909, President RAMON CACERES issued a decree regulating the concession of public lands in the Dominican Republic. Under the terms of this decree the individual or corporation desiring to obtain permission to cultivate the public lands of the Republic is required to make an application on sealed paper to the Department of Agriculture and Immigration, stating that the land is unoccupied, number of hectares desired, the Province, community, and section in which it is situated, and its boundaries. The purpose for which it is to be used must also be specified, as well as the nationality of the applicant. All the provisions of the law of June 9, 1905, must be complied with, and one-eighth of the grant must be cleared, fenced, and settled upon within one year from the date of the permission of the department to enter upon the land. Unless a special permit is obtained from the President of the Republic, only native laborers or European immigrants can be employed to work on the land.

If the Department of Agriculture and Immigration grant the application to take possession of the land, a bond must be furnished by the applicant, except in the case of citizens of the Republic who desire tracts of land containing less than 50 hectares.

When the concessionaire has cleared, settled upon, and fenced at least 50 hectares of the land, he may petition the Treasury Department for the return of the deposit corresponding to the 50 hectares, and repeat the petition with each succeeding 50 hectares until the whole amount of the deposit guaranty has been refunded. A failure to comply with the terms of the concession will cause the land, its appurtenances, and the deposit to be forfeited to the Government.

After ten years' occupation and cultivation in accordance with the terms of the concession, the concessionaire agrees to pay annually, in advance, 10 cents gold per hectare for the land included in the concession.

ECUADOR

GEOGRAPHICAL SKETCH.

The Republic of Ecuador, so called because of its situation under the equator, is bounded by the Pacific Ocean, the Republics of Colombia, Brazil, and Peru. Its area is estimated at about 116,000 square miles, equal to the combined area of the States of Missouri and Arkansas. It has a population of 1,500,000. The Galapagos Islands, about 730 miles off the coast, have an area of 2,400 square miles and a population of a little over 500.

Ecuador, like Peru, may be divided into four distinct regions, with as many varieties of climate, soil, and products. In the lowlands cacao, sugar cane, tobacco, coffee, and cotton are grown, while on the high "*paramos*," or plateaux, wheat and other cereals and potatoes are successfully cultivated. The extensive forests contain numerous species of useful trees, among them the *phytelephas macrocarpa*, yielding the commercial product known as vegetable ivory, and the *carludovica palmata*, furnishing the fiber from which Panama hats are made. In spite of the name, these hats come mostly from Ecuador and Colombia, especially the former country, the natives having acquired considerable skill in their manufacture. Other valuable trees are the cinchona, from whose bark quinine is obtained; the mangrove, used for tanning purposes; and the *bomba ceiba*, or silk cotton tree, yielding the valuable commercial product known as kapok.

Ecuador's four zones are called, respectively, *tierras calientes*, the hot lowlands; *templadas*, at an altitude of from 6,000 to 9,000 feet; *frias*, which embrace the fertile plateau of Quito, on which is located the capital of the country, 9,371 feet above sea level, and the *nevados*, comprising the snow-capped Andes, among which the peaks of Chimborazo, 20,498 feet, and Cotopaxi, 19,613 feet, are the highest. The Cordillera in Ecuador branches off into two distinct mountain chains, forming a number of high plateaux crossed by spurs or *nudos*, which give the country a most peculiar aspect topographically, not unlike a ladder, the *nudos* forming the rungs.

Gold, silver, iron, copper, coal, and other minerals exist in the Republic, but the mines have been worked with but little success.

HISTORICAL SKETCH.

When, in the beginning of the sixteenth century, FRANCISCO PIZARRO had conquered the great Inca empire and executed the Inca king ATAHUALPA, he dispatched his lieutenant, SEBASTIAN DE BENALCAZAR, to the north in order that he might conquer the Kingdom

of Quito, inhabited by the Caras, a people with social and political institutions similar to those of the Incas. With comparative ease the Spaniards took possession of the country, and on December 6, 1534, BENALCAZAR entered the capital of Quito.

GONZALO PIZARRO was appointed Governor of the Province of Quito, and the Spaniards then pursued their usual policy of apportioning the land among themselves and establishing feudal estates.

When the viceroyalty of Peru was established in 1542, the territory now included in the Republic of Ecuador was made a part thereof. Subsequently, in 1717, on the establishment of the viceroyalty of New Granada, with Bogota as capital, the territory was annexed to this viceroyalty, reverting to Peru in 1722, and to New Granada again in 1739.

The movement for independence began in Ecuador on August 10, 1809, when the citizens of Quito deposed the Spanish governor, Don RUIZ DE CASTILLA, and established a revolutionary *junta*. The Spaniards soon regained control and retained it until October 9, 1820, when the citizens of Guayaquil declared their independence. This movement was successful, and the complete victory obtained over the Royalist forces by General SUCRE at the battle of Pichincha on May 24, 1822, assured the independence of the country.

An assembly called by General SUCRE five days after this battle declared that the territory of the former presidency of Quito should be incorporated with the Greater Colombia of SIMON BOLIVAR, composing what are now the Republics of Colombia, Panama, Venezuela, and Ecuador.

This union was disrupted in the year 1830 when a constituting assembly, which met at Riobamba on August 14, proclaimed the constitution of the Republic of Ecuador. General FLORES was elected the first President of the Republic, and was succeeded in the year 1835 by the able statesman, Don VICENTE ROCAFUERTE, under whose administration the country enjoyed peace and prosperity.

General ELOY ALFARO, the present President, was inaugurated on January 1, 1907, for a term of four years.

CONSTITUTION AND GOVERNMENT.

The present Constitution of the Republic was adopted in 1897. Ecuador is a centralized Republic, with the usual division of powers into legislative, executive, and judicial branches.

The National Congress consists of the Senate and Chamber of Deputies. The former is composed of 32 members, 2 for each Province, and the latter of 41 members, 1 for every 30,000 citizens or fraction over 15,000. Senators, as well as Deputies, are elected by direct vote, every citizen over 18 years of age who can read and write being entitled to vote. Senators are elected for a term of four and Deputies for two years.

The President of the Republic is elected for a term of four years, by direct vote, and can not be reelected except after a lapse of two terms. The President may not leave the Republic without the consent of Congress during his term of office nor for one year thereafter. His salary is 24,000 sucres (\$12,000).

In addition to a Cabinet, consisting of five Ministers appointed by the President, there is a Council of State presided over by the Vice-President, made up of the five Ministers, the Attorney-General, the Chief Justice of the Court of Accounts, the Rector of the Central University, two Senators, two Deputies, and two other citizens. The seven last-mentioned councilors are elected by Congress. The Cabinet officials are: Minister of Interior and Public Works; Minister of Foreign Affairs and Justice; Minister of Treasury and Public Credit; Minister of Public Instruction, Posts, and Telegraphs; Minister of War and Marine.

The Supreme Court, located at Quito, the capital, is the highest tribunal, and consists of five justices elected by Congress for a term of six years. The superior courts are located at Quito, Guayaquil, Cuenca, Riobamba, Loja, and Portoviejo, the first two named being composed of six judges and the last four of three judges each, all elected by Congress for six years.

The court of accounts is empowered to audit and investigate all public accounts and expenditures, its members, like those of the Supreme Court and the superior courts, being elected by Congress for a term of six years.

INTERIOR GOVERNMENT.

The Republic is divided politically into 16 Provinces and 1 territory, and subdivided into cantons and parishes. The administration of the Provinces is in the hands of a Governor, who is appointed by the President of the Republic, as are also the executive officers of the cantons. In the parishes the councilors are elected by direct vote of the people, and have the right of regulating the budget and to recommend and vote improvements.

The Provinces of Ecuador and their capitals are:

Province of—	Capital.
Azuay.....	Cuenca.
Bolívar.....	Guaranda.
Cañar.....	Azogues.
Carchi.....	Tulcan.
Chimborazo.....	Riobamba.
Esmeraldas.....	Esmeraldas.
Guayas.....	Guayaquil.
Imbabura.....	Ibarra.
Leon.....	Latacunga
Loja.....	Loja.

Province of—	Capital.
Manabi.....	Portoviejo.
Oriente.....	Ahuano.
El Oro.....	Machala.
Pichincha.....	Quito. ^a
Los Rios.....	Babahoyo.
Tunguragua.....	Ambato.
Territory of Galapagos, composed of the Galapagos Islands.	

The principal cities, with population, are: Quito, 80,000; Guayaquil, 75,000; Cuenca, 40,000; Riobamba, 18,000.

ARMY AND NAVY.

The permanent army of Ecuador consists of 16 battalions of infantry, 4 regiments of artillery, and 1 regiment of cavalry. Military service is compulsory, liability to conscription commencing at the age of 18 and ending with the completion of the forty-fourth year. The active army numbers 4,379 officers and men. The national guard is said to consist of about 200,000 men.

The navy consists of 1 cruiser, 1 torpedo-boat destroyer, and a navy collier, which vessels are manned by 130 sailors.

ECUADOR IN 1909.

The notable event of the year in Ecuador was the successful national exposition held in Quito from the beginning of August till November to celebrate the centennial anniversary of the movement for independence. This was really an international exhibit and attracted the attention of the larger nations of the world. Undoubtedly the Republic will be a gainer by this step, as not only were the natural riches of the country brought more prominently into view, but the energy and progressive spirit of the present administration were clearly manifested.

President ALFARO has sent to Congress during the year several messages dealing particularly with the financial condition of the country. It is acknowledged that the financial reforms are urgently needed in order to bring the nation into fuller accord with the modern world, and Congress has supported the Executive in his proposals. It is shown, for instance, that in the estimates for 1909 fully 58 per cent of the receipts were devoted to special purposes, and it is proposed to bring about a reform in this regard.

Ecuador's great agricultural staples are cacao, coffee, and ivory nuts, besides rubber. The coffee crop for 1909 was largely in excess of that of the previous year, but the prices obtained were about the same. So far as reported, the cacao crop promised to be as great as that of 1908, which exceeded by 20 per cent the best record hitherto,

^aAlso capital of the Republic.

that of 1904; ivory nuts, however, fell far below the quantity expected or usually gathered.

Ecuador is going steadily forward with her policy to develop railroads in the interior of the country. Construction is progressing on the line southward to Cuenca, and work has commenced on the line from the Bay of Caraquez, on the coast north of Guayaquil, toward Quito. A contract has also been let for the road north toward Ibarra. This national scheme will throw open the productive areas of the country.

So far immigration into Ecuador has been small. Foreigners have come to the Republic and have made their homes there, but these have been individuals acting on their own initiative. The Government is determined now, however, to adopt the methods so successful in a few other Latin-American Republics, and has entered into a contract with a powerful steamship company in which it obligates itself to subscribe the passage money of prospective Italian immigrants.

FINANCE.

The national revenue for the year 1908, the latest period for which complete data is available, amounted to 13,362,186.71 *suces*, equivalent to about \$6,681,092.35. This amount exceeds the revenue of the preceding year by more than 2,500,000 (\$1,250,000) *suces*, but falls short of the revenue of 1906 by 100,000 *suces*.

The principal items of the receipts were as follows:

	Suces.
Imports in general.....	2,440,512.04
Exports in general.....	1,463,918.51
Southern Railway.....	1,049,420.00
Spirits.....	715,161.87
Consular fees.....	648,307.04
Wharfage taxes.....	528,444.42
Special school taxes.....	488,102.40
Ivory nut exports.....	468,834.70
Cacao exports.....	452,068.71
Salt monopoly.....	447,701.91
Stamp tax.....	415,893.35

The expenditures for the year were 12,764,685.77 *suces*, equal to \$6,382,342.88. This is about 900,000 *suces* less than the expenditures for the preceding year, and about 500,000 in excess of those for 1906.

The principal items of expenditure were:

	Suces.
Army.....	2,882,734.78
Police.....	992,742.69
Public instruction.....	992,082.98
Extraordinary expenditures.....	911,658.22
Municipalities.....	611,443.08
Public credit.....	594,083.84
Interest.....	503,122.01
Telegraphs and telephones.....	341,793.08

The total debt of Ecuador, foreign and internal, secured and unsecured, on June 30, 1909, amounted to 54,598,269.38 *suces*, on which there has been paid and held by the sinking fund 11,455,876.81 *suces*, leaving a net debt of 43,142,392.57 *suces*. The principal items of this debt and guaranties for the same are as follows:

Debt.	Amount.	Guaranty.
	<i>Suces.</i>	
Consolidated internal debt of 1903.....	1,900,125.00	85 per cent of 10 per cent customs duties.
Southern Railway Co., January, 1908.....	2,262,835.68	Salt tax.
Railway common bonds.....	22,583,316.00	Various imposts.
Railway preferred bonds.....	5,155,395.00	Do.
Gallardo debt.....	1,250,000.00	50 per cent of export duties.
Bank of Ecuador.....	2,714,258.14	Do.
Commercial and Agricultural Bank.....	2,547,291.86	Various imposts.
Interest due.....	1,036,532.78	

COMMERCE.

The total foreign trade of Ecuador for the year 1909 amounted to 43,583,044 *suces*, of which 18,704,244 *suces* was imports and 24,878,800 *suces* was exports. These figures show a balance of trade in favor of the Republic of 6,174,556 *suces*.

For the year 1908 the figures were: Imports, 20,554,731 *suces*; exports, 26,559,207 *suces*; total, 47,113,938 *suces*. There was therefore a falling off in foreign trade for the year: In imports 1,850,487 *suces*, and in exports 1,680,407 *suces*, a total decrease of 3,530,894 *suces*.

The actual decrease in trade was not, however, so great as the figures would seem to indicate. In the year 1908 there is included among the exports gold coin to the value of 2,800,508 *suces*, and in the year 1909 the exportation was less than 900,000 *suces*, showing a decrease in the shipment of gold coin alone of over 1,900,000 *suces*, while the total apparent decrease in exports is less than this amount. From this it can be seen that there was in reality a slight increase in the value of exports of merchantable articles.

The figures for the year 1909, reduced to equivalent value in United States gold, are: Imports, \$9,352,122; exports, \$12,439,400; total, \$21,791,522.

The value of the imports by countries of origin for the years 1908 and 1909 was as follows:

Country.	1908.	1909.
Great Britain.....	\$3,602,409.00	\$3,149,824.00
United States.....	2,048,846.50	2,397,995.00
Germany.....	2,149,117.00	1,673,432.00
France.....	738,614.00	610,435.00
Italy.....	468,784.50	461,147.00
Belgium.....	418,523.00	437,682.00
Spain.....	337,968.50	331,797.00
Peru.....	364,890.50	112,758.00
Chile.....	64,513.00	101,376.00
All other countries.....	83,699.50	75,676.00
Total.....	10,277,365.50	9,352,122.00

IMPORTS

INTO ECUADOR

1909

9,352,122

10,277,365

1908

ECUADOR

EXPORTS

FROM ECUADOR

1909

12,439,400

13,279,603

1908

IMPORTS FROM

GREAT BRITAIN	\$3,149,824
UNITED STATES	2,397,995
GERMANY	2,149,117
FRANCE	610,435
ITALY	461,147
BELGIUM	437,682
SPAIN	331,797
PERU	112,758
CHILE	64,513
ALL OTHER COUNTRIES	83,699

IMPORTS

EXPLANATION

1909

1908

1909

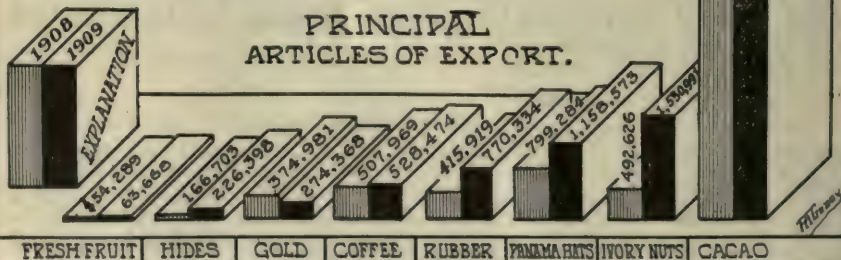
1908

EXPORTS TO

FRANCE	\$4,460,807
UNITED STATES	3,416,146
GERMANY	3,871,409
GREAT BRITAIN	1,577,999
CHILE	991,782
HOLLAND	1,250,734
SPAIN	1,761,439
ITALY	402,802
PERU	281,871
AUSTRIA-HUNGARY	320,523
PANAMA	44,813
ALL OTHER COUNTRIES	292,440
	799,793
	228,836
	115,885
	160,727
	74,382
	135,628
	116,800
	52,610
	34,055
	140,148
	134,486

EXPORTS

PRINCIPAL ARTICLES OF EXPORT.



There was a gain in trade for the United States of \$349,148, and a loss to Germany of \$475,685, to Great Britain of \$452,855, and to France of \$128,179.

The classifications of imports by articles for the two years 1908 and 1909 are not made upon the same basis, so that a strict comparison of the two is not possible. For the year 1908 imports are classified as follows:

Articles.	Value.
Oils.....	\$66,437.50
Live animals.....	3,545.00
Arms and ammunition.....	169,369.50
Food products.....	1,223,831.00
Boots and shoes.....	103,652.50
Carriages.....	37,359.50
Cement and stone.....	41,179.00
Leather manufactures.....	113,186.50
Drugs and medicines.....	276,970.50
Ships.....	18,998.00
Hardware.....	729,597.00
Matches.....	42,358.00
Rope and cord.....	160,071.00
Musical instruments.....	72,075.50
Jewelry.....	14,663.50
Books.....	55,442.00
Stone and glass ware.....	147,966.00
Wood and wood manufactures.....	114,563.00
Machinery.....	343,488.50
Minerals.....	338,277.50
Gold and silver coin.....	931,152.50
Stationery.....	177,378.50
Perfumery.....	59,583.00
Paints and varnishes.....	45,411.00
Ready-made clothing.....	414,287.50
Silks.....	124,852.00
Hats.....	157,397.50
Textiles.....	2,923,905.00
Vegetables.....	54,538.00
Candles.....	166,317.00
Wines and liquors.....	517,167.00
Miscellaneous.....	632,440.50

For the year 1909 the imports were:

Articles.	Value.
Books, blank and printed.....	\$45,301
Boots, shoes, and findings.....	104,375
Candles.....	111,562
Cement.....	41,608
Coal.....	108,038
Cordage and twine.....	59,482
Clothing.....	554,551
Crockery and glassware.....	98,668
Drugs and chemicals.....	191,203
Foodstuffs.....	1,076,102
Furniture.....	85,132
Gold coin ^a	853,000
Hats.....	142,019
Iron and hardware, in general.....	416,491
Jute bagging.....	120,652
Jute and paper bags.....	56,145
Kerosene and gasoline.....	158,787
Leather.....	113,778
Machines and machinery.....	343,995
Musical instruments.....	38,533
Paints and oils, in general.....	45,786
Paper, in general.....	134,850
Perfumery.....	30,745
Railway material.....	175,320

^a Gold coin: From Great Britain, \$675,000; from Peru, \$28,000; from the United States, \$150,000; total, \$853,000.

Articles.	Value.
Soap, laundry and toilet.....	\$138,100
Textiles.....	2,489,616
Wines and liquors.....	325,478
Water, table and toilet.....	54,425
Miscellaneous.....	1,238,380
Total.....	9,352,122

The imports for the year 1909 are not classified by articles and countries, so that a specification of particular imports from particular countries can not be given.

For the year 1908 full reports are available. The principal items of this particularization are as follows:

Manufactured food products were imported to the value of \$55,007, of which the United States sent \$24,894.50 and France \$9,528.50. Out of \$63,615.50 worth of hams the share of the United States was \$12,778.50. Of the total import of lard, valued at \$367,073.50, the United States contributed \$325,770. Nearly all of the butter came from Italy, as also most of the cheese. Sardines were imported from Spain and Belgium and olive oil from Italy. Rice was imported to the amount of \$119,342, of which \$98,046.50 came from Germany; and sugar to the amount of \$68,133, of which \$39,870 came from Salvador and \$15,380 came from Germany. Nearly all the macaroni came from Italy.

Wheat flour was imported to the value of \$290,859, all of which, excepting \$1,855, came from the United States.

In textiles, of \$60,542 cotton laces imported, England sent \$50,164.50 and Germany \$8,397. The great bulk of other cotton textiles came from England, as did also most of the wool textiles. The silks came from France, Germany, and England. Shoe leather was imported to the value of \$83,482.50, of which the United States sent \$35,398 and Germany \$38,799.50. Coal to the value of \$149,238.50 was imported, and of this amount England sent \$135,920.50 and Peru \$13,315. Cement to the value of \$17,849, out of a total of \$30,654, was imported from Germany. Most of the jewelry and fancy articles came from France and Germany. Leather shoes to the value of \$79,220 were imported, of which the United States sent \$52,201, Germany \$9,077, and Spain \$8,063.50. The importation of knit undershirts was of the value of \$119,921, of which amount \$52,905.50 came from Spain and most of the remainder from Germany, England, and France. Cotton stockings came, for the greater part, from Germany, \$75,337 out of \$96,051. Cotton trousers were also from Germany, \$31,662. Machine oil was imported from the United States, as was also most of the weighing scales. The bulk of wire nails was from Belgium and Germany, and cut nails

from England and Germany. Miscellaneous hardware was principally from the United States, as were nearly all the axes and hatchets. Corrugated iron was imported to the value of \$101,415. Of this England sent \$53,614 and the United States \$35,242.50. Grain shovels were from England. Sewing machines were imported to the value of \$59,605.50, of which the United States sent \$50,254. Nearly all of the typewriters were imported from the United States, as well as the bulk of the other small machinery. The various kinds of ordinary paper came mostly from Germany and Spain.

Jute bags to the value of \$50,316 came mostly from England. Of the total of \$27,742 in electric-light fixtures, \$22,085.50 came from the United States. Nearly all of the window glass was from Belgium and Germany. Enameled ironware was imported to the value of \$56,024.50, of which \$43,970.50 came from Germany and \$5,420 from Belgium. Iron beds to the value to \$31,683 were imported from England. Common glassware came mostly from Germany, and brooms from the United States. Common soap was imported to the value of \$136,797, of which Belgium sent \$79,795 and France \$14,493. Most of the common stoneware came from Germany. Coffee mills were from the United States. Ordinary wooden furniture was mostly from Germany and a small amount from the United States and France.

Perfumery was from France, England, and the United States. Glass came mostly from the United States, with Germany second. Common candles were imported to the value of \$168,723, of which \$94,325.50 came from Belgium, \$47,823.50 from England, and \$21,363 from Germany.

A small quantity of steel rails came mostly from Belgium. Railroad tools to the value of \$38,916.50 were from the United States. A small number of automobiles were imported from France.

In wines and liquors there was imported beer to the value of \$159,521, of which \$147,643.50 came from Germany, and smaller quantities from the United States and England. Cognac worth \$100,000 came from France, with very small amounts from Spain and England. Nearly all of the imported champagne was from France. Ordinary wine to the value of \$200,602.50 was imported, of which \$84,173.50 came from Spain, \$53,813 from France, and small quantities were imported from Italy, England, the United States, and Germany. Sparkling wines were mostly from France, and nearly all of the vermouth was from Italy. Nearly \$5,500 of whisky was from England, and nearly half as much from the United States. A few cigars and cigarettes were imported, most of them being from Cuba.

Printed books came from Spain, France, the United States, and Germany. The larger part of stationery supplies were from Germany.

The principal drugs were also from Germany. Shotguns were mostly from Spain, and revolvers from Spain, the United States, and Germany, and cartridges from the United States and Germany. Refined petroleum was imported to the value of \$116,434.50, of which more than half was from the United States.

Coin gold was brought in to the value of \$931,152.50, of which \$625,000 was from England, \$256,152.50 from Peru, and \$50,000 from the United States.

The exports for the years 1908 and 1909, by countries, were as follows:

Country.	1908.	1909.
France.....	\$5,052,885.50	\$4,460,807.00
United States.....	3,871,409.00	3,416,146.00
Germany.....	991,782.50	1,577,999.00
Great Britain.....	1,761,439.50	1,250,734.00
Chile.....	281,871.00	402,802.00
Holland.....	44,813.50	320,523.00
Spain.....	799,793.00	292,440.00
Italy.....	115,885.00	228,836.00
Peru.....	74,382.50	160,727.00
Austria-Hungary.....	116,800.00	135,828.00
Panama.....	34,055.50	52,610.00
All other countries.....	134,486.50	140,148.00
Total.....	13,279,603.50	12,439,400.00

The principal articles of export for the two years were:

Articles.	1908.	1909.
Cacao.....	\$8,868,520.00	\$7,261,309.00
Ivory nuts.....	492,626.00	1,530,991.00
Panama hats.....	799,284.00	1,158,573.00
Rubber.....	415,919.50	770,334.00
Coffee.....	507,969.00	528,474.00
Gold (metal and ore).....	374,981.00	274,368.00
Hides.....	166,703.50	226,398.00
Fresh fruit.....	54,289.50	63,668.00

The purchasers of cacao in 1909 were as follows:

Country.	Amount.	Value.
	<i>Pounds.</i>	
France.....	39,064,753	\$4,190,386
United States.....	13,893,658	1,407,077
Great Britain.....	4,633,497	440,668
Germany.....	4,927,727	435,232
Holland.....	2,876,136	319,624
Spain.....	2,201,707	263,380
Italy.....	163,374	18,042
All other countries.....	1,692,710	186,900
Total.....	69,453,562	7,261,309

Compared with the figures for the preceding year, there was a loss in cacao exports to France of \$678,699, to Great Britain, \$588,304, and to the United States, \$126,298. There was a small gain in the

exports to Germany and a considerable gain to Holland and other countries.

Chile was the principal purchaser of coffee, taking an amount valued at \$255,511. This was more than double the amount taken by Chile the preceding year. Next in order came the United States with \$75,500; Germany, \$54,844; Panama, \$38,580; France, \$21,805, and Great Britain, Spain, and other countries with lesser amounts.

The principal importers of Panama hats from Ecuador were: Great Britain, \$483,480; United States, \$339,868; Germany, \$151,398; France, \$58,483; Cuba, Panama, and other countries, lesser amounts.

Ecuadorean rubber to the amount of 751,260 pounds, valued at \$513,508, was exported to the United States; 240,288 pounds, worth \$166,487, to Germany; 64,891 pounds, worth \$49,153, to Great Britain; and lesser amounts to other countries.

Of hides, 1,522,272 pounds, valued at \$184,139, were exported to the United States out of a total exportation of 1,933,045 pounds, worth \$226,398. Of the remaining exportation Germany took \$20,205, and Great Britain, \$13,157.

Of ivory nuts (tagua), Germany took about one-half, \$718,794, out of \$1,530,991. The United States took about one-half the remainder, \$376,038.

INDUSTRIES.

The chief industry is agriculture, the raising of cacao being the main interest of the country. That article is the first on the export list, and the supply from Ecuador parallels that of Brazil and the East Indies. Rubber, sugar, coffee, bananas, and rice are also cultivated. The estimated annual production of the last-mentioned product is in the neighborhood of 40,000,000 pounds, which is not quite sufficient to meet the demands of the home market, necessitating importations from various foreign countries.

The growing of sugar cane is of considerable importance, the output of the various plantations aggregating in the neighborhood of 160,000 bags (of 100 pounds), which is about sufficient for the home market, although there is some traffic in this article with outside countries.

The coffee crop is estimated to be about 7,000,000 pounds annually, and the output of vegetable ivory nuts, of which Ecuador exports a considerable quantity, is placed at 48,000,000 pounds, all of which is exported.

Rubber is gathered and brought to market during all the months of the year, something more than 1,000,000 pounds representing the annual yield.

In order to encourage the development of the grape industry, the National Congress has exempted domestic grape products from the payment of federal and municipal taxes, and for the general promo-

tion of agricultural development the Government has recommended the establishment of boards of agriculture in Quito, Guayaquil, and Cuenca. These boards will work in conjunction with the Government for the development and improvement of stock raising, irrigation, planting and fertilizing of lands, the harvesting of crops, and the improvement of the means of communication. The importation of useful seeds, plants, and animals will be encouraged and premiums offered for the best results obtained in the agricultural and stock-raising industries of the Republic. Included in this plan are the founding of agricultural schools and the establishment of meteorological observatories.

Other than the plaiting of hats, to protect which an export duty is placed on shipments of toquilla straw, manufacturing industries are represented by foundries, ice plants, sugar refineries, and a number of flour mills. Several small establishments are also engaged in the manufacture of woolen and cotton blankets, ponchos, bayetas, common carpets, felt hats, etc. Laces, embroideries, shoes, furniture, matting, saddles, wagons, and carts are made by hand, and a small shoe factory has been installed.

The principal industries of Guayaquil of long standing cover such important articles of consumption as vermicelli, chocolate, biscuits, beer, ice, soap, candles, and liquor, while the more recent industries consist of the manufacture of bags, wafers, cotton fabric, mosaics, and a well-equipped tannery. The manufacture of matches has been particularly successful in the Republic, and the quality and price of this product compare most favorably with matches of foreign manufacture.

In Quito manufacturing interests are represented by flour mills, foundries, ice factories, and sugar refineries. Shoes are made by hand. Other industries, such as the making of blankets, ponchos, carpets, saddles, hats, furniture, and pottery are represented in a small way. The capital is also noted for the large amount of religious painting and sculpture done within its limits and exported to other countries. The making and coloring of small articles from vegetable ivory and the curing of the skins of small birds, particularly humming birds, are carried on to some extent in the city.

The mineral deposits in the country have as yet been only slightly developed. The country is known to be rich in gold, mercury, copper, iron, lead, and coal, while silver ore deposits have been found but not worked, and at Esmeraldas platinum has been found in variable amounts. Petroleum has been discovered in paying quantities. Large deposits of sulphur are also known to exist in the Pichincha and Chimborazo districts and in the Galapagos Islands. Lack of transportation facilities only retards the development of the coal deposits in the interior of the Republic.

RAILWAYS AND INTERIOR WATERWAYS.

The total extent of railway lines in operation is 510 kilometers (a little over 316 miles). The Guayaquil and Quito Railway Company completed the construction of its line from Guayaquil to Quito on June 25, 1908, and since that date trains, both passenger and freight, have been running regularly between the two cities. The regular passenger trains only run during the day and make the trip (297 miles) in two days, when formerly, by mules and on foot it was not uncommon to require twelve and fifteen days in going over the same route. Since the completion of the railway the people of Quito and of the whole Republic are looking forward to a new era of progress. The operation of the newly opened line is rendered expensive through the necessity of importing coal from Australia, although coal fields, equal in extent to those of West Virginia, exist within 40 miles of the main road. An arrangement has been entered into by the railroad company for the development of these deposits, it being estimated that the cost of constructing a branch to them will be about \$1,500,000. The completion of this project will make the whole line pay handsomely.

Some work has been done on the railway from Huigra to Cuenca, which was commenced August 6, 1908, and is to be completed within twenty-eight months from that time. When finished this road will open the rich mining and agricultural district of southern Ecuador. It not only traverses coal fields of enormous value but is an important link in the Pan-American railway, besides opening up the vast plateau of southern Ecuador and connecting Cuenca, the third city of the Republic, with Quito and Guayaquil.

In July, 1909, a French company commenced the construction of the railway from the Bay of Caraquez to Quito, capital of the Republic. In January, 1910, 5 miles of rails had been laid and 16 miles of the roadbed of this line had been constructed. The work is progressing rapidly, and in February, 1910, the track had been extended a distance of 15 kilometers along the left bank of the Chone River, and trains were being operated over that section of the railway.

The total length of the Caraquez Bay to Quito line is 300 kilometers (186 miles), which is less than the distance traversed by the Southern Railway, which runs from Guayaquil to Quito. The route chosen for the former railway passes through an exceedingly fertile region of Ecuador, one that is now producing a considerable yield of the best grades of cacao and is capable of being developed so that immense quantities of this and other valuable agricultural products can be grown with a minimum outlay of capital and labor. The climate of the territory that will be traversed and opened up by this railway is salubrious and healthful, the temperature ranging

from 23 to 29 degrees centigrade. The rainfall is less than that experienced at Guayaquil or Panama and the winter season is shorter.

A contract has been made by the Government for the construction of a broad-gauge road from Port Vargas Torres to Ibarra, a distance of about 200 kilometers (124 miles).



MAP SHOWING RAILROADS IN OPERATION AND PROJECTED LINES IN ECUADOR.

The Congress of Ecuador has authorized the municipality of Guayaquil to construct a railway to connect the city of Guayaquil with some of the coast bathing resorts. A certain proportion of the internal-revenue taxes of that municipality is to be used to pay the expenses of the survey and the cost of construction. The terminus of the railway has not yet been selected.

The ad referendum contract made by the Government for the construction of a railway from Manta to Santa Ana, and the building of a wharf at the former place, was approved, in a slightly modified form, by the National Congress, and was duly promulgated by President ALFARO on November 10, 1909. The contract provides that the railway shall start from the port of Manta, pass through the cities of Montecristi and Portoviejo, and terminate at the city of Santa Ana. The gradients of the line shall not exceed 3 per cent, nor shall the radius of curves be less than 60 meters. It is specified that the cities of Manta, Montecristi, Portoviejo, and Santa Ana shall be provided with railway stations adequate for the proper accommodation of the traffic of the line. The rolling stock shall be of the best quality and ample for the handling of the freight and passenger traffic of the company. The bridges and trestles are to be solidly constructed of iron, steel, and masonry, and the ties used on the railway must be of durable wood, such as guayacan, mesquit, etc.

In addition to the construction of the railway, the concessionaire agrees to build an iron or concrete wharf or a wharf constructed of both of these materials, 158 meters long by 8 meters wide, having a head 100 meters in length by 16 meters in depth, and to be connected with the railway. Detailed plans of the railway and wharf must be submitted to the Department of Public Works for approval, and the construction of the railway and wharf must be commenced within a year from the approval of the contract by the Congress, and must be concluded, barring unavoidable circumstances, within two years thereafter.

The construction of the railway and wharf will be under the supervision of the National Government, and after the wharf is opened for traffic its use shall be obligatory in the freight traffic of Manta.

The concession is for a period of seventy-five years, during which time the company will operate the railway and the wharf, in accordance with the conditions of the contract, after the expiration of which term the entire property, with all its appurtenances, shall become the property of the Government.

A representative of the National Railway Company has made an ad referendum contract with the Government of Ecuador for the construction of a railway from Puerto Bolívar to Biblian in the Province of Cañar.

The President, believing that the future greatness and prosperity of the Republic depend largely on its railway transportation facilities, recommended in a message to the Congress in the latter part of the year that the Inter-Andine Railway be extended to Ibarra, and that branch lines be built to the capitals of the Provinces of Azuay and Imbura, thereby opening to development and exploitation the natural wealth of these agricultural and mineral zones.

Some 20 steamers, as well as a number of sailing vessels and freight canoes, maintain an active coast and river service, most of the numerous rivers of Ecuador being navigable for considerable distances inland and affording excellent means of transportation. The Guayas River, at the mouth of which is the city and port of Guayaquil, is the most important of these waterways, being navigable for river steamers as far as Bodegas, 40 miles from Guayaquil, while smaller vessels can, during the wet season, reach Zapotal, some 200 miles inland. The River Daule is navigable for some 60 miles, the Vinces for 50 miles, while the Esmeraldas, Naranjal, Santa Rosa, Santiago, and Mira rivers are all navigable during the rainy season for short distances varying from 10 to 60 miles or more. The Amazon River, which in Ecuador is given the name of Marañón River, is navigable almost in its entirety, and thus the eastern slope of the Ecuadorean Andes may be reached by way of Brazil and the Amazon River and its tributaries.

MEANS OF APPROACH.

Ecuador is accessible practically only from the Pacific Ocean, communication by land with the neighboring Republics of Brazil and Colombia being well-nigh impossible, owing to the dense forests and the high altitudes of the mountain ranges. On the Pacific coast, however, Ecuador has a number of good ports, affording anchorage and shelter for the largest ocean-going vessels, the most important of which is Guayaquil, connected by rail with the capital, Quito. Other ports of importance are Bahia de Caraquez, Manta, Puerto Bolívar, and Esmeraldas.

Two steamship lines ply between New York and Guayaquil, the New York and Pacific Steamship Company and the West Coast Line, with irregular sailings about once a month, employing from sixty to seventy-four days in the trip and having mostly freight boats in this service.

The quickest way to reach Ecuador from New York or New Orleans is via the Isthmus of Panama. From the port of Panama connection can be made with the Pacific Steam Navigation Company, the Compañía Sud-Americana de Vapores, or the Peruvian Steamship and Dock Company of Callao, with regular weekly sailings, employing from three to six days from Panama to Guayaquil.

The Kosmos Line maintains a regular fortnightly service on the Pacific coast, touching at all the more important ports between San Francisco and Magellan Straits, their steamers making the trip from San Francisco to Guayaquil in from twenty-four to thirty days, while various other lines maintain regular services between European and Ecuadorian ports.

Port entries of foreign vessels at Guayaquil during 1909 show a total of 195 steamers and 7 sailing vessels, with a registered tonnage of 398,963 and a cargo of 87,717 tons. Of these 109 were British, 37 were Chilean, 48 German, 2 French, 1 Peruvian, 2 Norwegian, 1 Austrian, and 2 North American.

POSTS AND TELEGRAPHS.

Ecuador is a member of the Universal Postal Union, and has recently entered into parcels-post conventions with several countries. The money-order system was introduced into the Republic in 1889. This important branch of the Government is well-organized and efficiently administered. With a view to further increasing the efficiency and usefulness of the postal service of the country and in order to more adequately supply the needs of a growing country, a material increase in the number of post-offices in operation has been made.

The total extent of the telegraph system is 2,608 miles, with over 60 stations. The entire system has been extended to such purpose that there is hardly a town or hamlet of any importance which does not possess a telegraph or telephone station. Wireless telegraph stations are planned for Guayaquil and Isla de Puna. A telephone service is maintained in the city of Quito and suburbs, with long-distance connection with Guayaquil and other cities of the Republic.

EDUCATION.

The school system of the nation, which is under the Minister of Public Instruction, is being markedly improved, and the modern methods adopted have produced flattering results. Quito has 5 colleges (one of them a military college), 2 normal institutes (one of which is for girls), a university, a medical school, 2 seminaries, a theological school, an institute of science, a school of arts and trades, 3 schools for young women, and 3 kindergartens. There are upward of 1,200 primary schools, with an attendance of 70,000.

During the year there were in the United States about 100 Ecuadorian young men in the different colleges and universities, preparing themselves to become civil, mechanical, electrical, naval, and mining engineers. Another 100 were sent to Europe for the same purpose.

GENERAL INFORMATION.

The Congress of the Republic has passed a law authorizing the National Government to aid the city of Guayaquil in securing an abundant supply of potable water, to assist it in paving the streets, and in the sanitation of the city. It has been estimated that the water supply and sewerage systems of the city will cost 2,900,000 *suces* (\$1,412,300), and the paving of the streets a considerable addi-

tional sum. The municipality of Guayaquil will contribute 10,000 *suces* per month to the paving of the streets, and the federal tax of 3 *suces* per head of cattle imported for consumption, with the exception of those entering the country through the Province of Carchi, is to be used in effecting the improvements referred to.

The ad referendum contract made on July 15, 1909, for the exploitation of petroleum, natural gas, and asphalt deposits found on government lands of Ecuador in whatever form these substances may be encountered, as approved by Congress, became operative November 5, 1909. The company holding the contract agrees to supply the people of Ecuador with petroleum, natural gas, and asphalt at prices not in excess of those charged for the same products when exported, and to sell said products to the Government and municipalities for their use at the cost of production.

The improvement of the port of Bahia de Caraquez and securing of an adequate supply of water for municipal usages are the subjects of a contract made between the Government and a citizen of France resident in Quito. The estimated cost of the work is \$1,020,000, and the following comprise the items of labor provided for:

The construction of a wharf of masonry; the building of warehouses and sheds; the installation of mechanical apparatus for unloading and grading; installation of buoys and light-houses; establishment of railways along the wharf; dredging of the sand bar; dredging of the river to the depth requisite to provide anchorage; and the construction of waterworks to assure a great volume of water in sewers and the bringing of drinking water to the city.

The present population of Bahia is about 4,000, but the town is growing rapidly and there are many new buildings under construction. One of the great inconveniences of Bahia as a port at this time is the lack of a sufficient supply of potable water, the tide being felt up the river for a distance of 30 kilometers. A contract for an electric-light plant, the power to be generated by a neighboring waterfall, has been let, and it is expected that the installation will take place in the near future. When the improvements contemplated are made, the Bay of Caraquez will be one of the most healthful, best equipped, and most desirable ports on the Pacific coast of South America.

On October 21, 1909, the Government of Ecuador formally approved the convention of arbitration celebrated on January 7, 1909, between Señor LUIS FELIPE CARBO, Envoy Extraordinary and Minister Plenipotentiary of Ecuador in Washington, and Hon. ELIHU ROOT, Secretary of State of the United States at the time the convention was celebrated.

In accordance with an executive decree of December 27, 1909, a bureau of statistics has been established under the control of the

Ministers of Education and of Finance. The bureau is created for the purpose of compiling statistics on the schools, post and telegraph systems of the country.

The President called the attention of Congress to his efforts during his first administration to interest foreign capital in the development of the Santa Elena petroleum deposits on a large scale, stating that the circumstances were unfavorable for the realization of the project at that time, but that on July 15, 1909, an ad referendum contract was made by the Government with an English capitalist to exploit these deposits, and the Executive strongly recommended the approval of the same by the Congress, believing its acceptance to be advantageous and to the interest of the Republic.

The National Congress in 1909 passed a bill providing for the protection of the cacao industry, and authorizing the establishment in Guayaquil of a board of trade of agriculture, with authority to appoint a commission to study the production and consumption of cacao. The President of the Republic is authorized to take the initiative in calling a congress of the cacao-producing countries.

The National Congress has also granted a concession to the Lignite Mining Company to construct a short railway from the lignite mines or deposits in the parish of San Antonio, Province of Pichincha, to the city of Quito. According to the terms of the concession, the railway must be completed within two years from October 28, 1909.

With a view to bettering existing conditions in coastal navigation and for the development of the commerce of the Republic, a decree was issued by President ALFARO, under date of April 16, 1909, calling for the creation of a special commission in Guayaquil for the purpose of receiving proposals from the various navigation companies. The decree further stipulates that proposals must be in betterment of existing conditions, both as to tariff and itinerary. With a view to securing proposals from as many steamship lines as possible, the term of sixty days provided for in the decree will be extended to enable those companies located at a distance to file their bids.

The President in a message to Congress advocated the adoption of a protective tariff in order to encourage home industries and to increase the revenues of the Government, and proposed that a higher internal-revenue tax be placed on liquors, and that other revenue reforms be effected so that funds may be obtained to meet the expenses of the nation.

The Chief Executive also recommended that a national exposition be held at Guayaquil in 1920 in honor of the patriots and heroes who raised the cry of independence on the banks of the Guayas on October 9, 1820, and to this end he recommended the raising of 1,000,000 sucres (\$487,000) by the levying of a 4 per cent surcharge tax on import

duties, to be used in defraying the expenses of the exposition, and that he be authorized to appoint a commission to formulate and carry the project to a successful termination.

After the close of the National Exposition at Quito held in 1909, arrangements were made with the Government of Ecuador to keep the United States Pavilion open in order to give the public an opportunity to see new articles which had recently arrived for exhibition, and for the purpose of more thoroughly acquainting manufacturers, merchants, and the consuming public with the manufactured products of the United States.



GUATEMALA

GEOGRAPHICAL SKETCH.

The Republic of Guatemala, the northernmost of the Central American Republics, is bounded by the Pacific Ocean, Mexico, British Honduras, the Gulf of Honduras, and the Republics of Honduras and Salvador. It has a total area of 48,290 square miles, equal to that of the States of Kentucky and New Jersey, and an estimated population of 1,992,000, or about 40 per square mile.

With the exception of a small strip along the coast, Guatemala lies at an altitude of from 4,000 to 11,500 feet, its capital, Guatemala City, being 4,850 feet above the level of the sea. The chain of mountains which traverses its territory and sends out a number of spurs, forms several plateaux, which are extremely healthful and fertile, and on which products of the tropical and temperate zones are successfully grown. The coffee exported from Guatemala is noted for its excellence, and sugar, cacao, tobacco, and bananas are also grown for shipment. A limited trade is carried on in india rubber from the product of the *castilloa elastica*, and various classes of cabinet and other woods. Placer gold mines, also silver and salt mines, are worked successfully.

HISTORICAL SKETCH.

PEDRO DE ALVARADO, a lieutenant of CORTEZ, was the first to attempt seriously the conquest of Guatemala, then inhabited by the Quichés, Caribs, and other warlike Indian tribes. Due to constant strife among the natives the Spaniards easily succeeded in conquering and enslaving them, and in the year 1524 ALVARADO, in order to establish his authority firmly, had the two kings of the Quichés executed. Guatemala, which at that time comprised all the territory now known as Central America, as well as the Mexican States of Chiapas and Yucatan, became a captain-generalcy, at first independent, but later under the authority of the Viceroy of Mexico.

In July, 1527, ALVARADO founded the City of Guatemala. This first city was short lived and in the year 1542 it was rebuilt on the site of what is now the old city, which was itself in turn destroyed by an earthquake in the year 1773. In 1776 the present city was laid out at a site 25 miles northeast of La Antigua.

After several unsuccessful attempts, independence was finally achieved by the countries comprising the former Kingdom of Guatemala on September 15, 1821. The Spanish Governor, GABINO GAINZA, who was in favor of the revolution, was elected President

of the Provisional Junta. In January of the following year, however, Guatemala became a part of the Empire of Mexico. When, in the year 1823, ITURBIDE was forced to abdicate the throne of Mexico and the latter country became a Republic, Guatemala was once more at liberty to choose its own form of government, and a Constituent Congress, which had been summoned by General FILOSOLA, the Mexican Governor of Guatemala, declared on July 1, 1823, that the old Kingdom of Guatemala should henceforth be free and independent from Spain, Mexico, or any other nation, and should form an independent nation under the title of the Central American Federation, embracing the present Republics of Guatemala, Honduras, Salvador, Nicaragua, and Costa Rica. Gen. JOSÉ ARCE was the first President of the Federation.

The union did not, however, prove practical, and one by one the States seceded and formed independent Republics, Guatemala finally establishing an independent Government on April 17, 1839, under the title State of Guatemala, which name was changed on March 21, 1847, to that of the Republic of Guatemala.

Several attempts have from time to time been made by the different Republics to reestablish the Central American Union, but these have failed. An arrangement was brought about by the Central American Peace Conference, held in Washington in December, 1907, the result of which has been the establishment of an International Court of Justice at Cartago, Costa Rica, and an International Bureau at Guatemala to promote the industries, commerce, and agriculture of the Central American Republics.

President MANUEL ESTRADA CABRERA was reelected on April 11, 1910, for a second term of six years from March 15, 1911.

CONSTITUTION AND GOVERNMENT.

Upon separation from the other Central American States, Guatemala adopted the unitary, republican form of government, with powers vested in the legislative, executive, and judicial branches.

The National Assembly consists of one chamber only, composed of 69 deputies, one for every 20,000 inhabitants or fraction thereof over 10,000, elected by direct vote of the people for a term of four years.

During recess the Assembly is represented by a permanent committee of seven members appointed by the Assembly, whose business it is to prepare all legislation for the next session and to advise the Executive.

The President of the Republic is elected by direct vote, all citizens over 21 years of age, who are able to read and write, being entitled to vote. His term of office is six years and is allowed a salary of 30,000 pesos (about \$10,500) per annum. There is no Vice-President, but two *designados* are elected at the same time as the President,

who take the place of the Chief Executive, in case of his death or disability, in their respective order.

A cabinet of six Secretaries in charge of the Departments of Foreign Affairs, Government and Justice, Treasury and Public Credit, War, Public Instruction, and Promotion, assists the President in the administration of affairs of the Republic, and also a Council of State composed of fifteen members, of which the six Secretaries form part *ex officio*, five councillors being elected by the Assembly and four appointed by the President.

The national supreme court, six courts of appeals, and a number of district or municipal courts comprise the judiciary of the country. The supreme court has five members and the courts of appeals three members each, all of whom are elected by direct vote of the people.

INTERIOR GOVERNMENT.

Guatemala is divided politically into 21 departments, each of which is again subdivided into districts or *municipios*. The *Jefe Politico* or Political Chief is the highest authority in the department. The *alcaldes* are the administrators of the districts and are elected by direct vote, as are also the *rigidores* or aldermen.

Following are the Departments of Guatemala, with their respective capitals:

Department of—	Capital.
Alta Verapaz	Coban.
Amatitlan	Amatitlan.
Baja Verapaz	Salama.
Chimaltenango	Chimaltenango.
Chiquimula	Chiquimula.
Escuintla	Escuintla.
Guatemala	Guatemala. ^a
Huehuetenango	Huehuetenango.
Izabal	Izabal.
Jalapa	Jalapa.
Jutiapa	Jutiapa.
Peten	Flores.
Quezaltenango	Quezaltenango.
Quiche	Santa Cruz del Quiche.
Retalhuleu	Retalhuleu.
Sacatepeque	Antigua Guatemala.
San Marcos	San Marcos.
Santa Rosa	Cuajiniquilapa.
Solola	Solola.
Suchitepeque	Mazatenango.
Totonicapam	Totonicapam.
Zacapa	Zacapa.

The chief cities and the population of each are: Guatemala, 100,000; Quezaltenango, 25,000; Totonicapam, 28,000; Coban, 23,000; Puerto Barrios, 2,000; San Pedro, 10,000.

^a Also Capital of the Republic.

ARMY AND NAVY.

The active army of Guatemala as reorganized numbers 85,535 officers and men when mobilized. The active force comprises 171 battalions. The reserve army consists of 40,575 officers and men and is divided up into 81 battalions. All male citizens not exempted are liable to conscription from their eighteenth to their fiftieth year.

A navy has not yet been built.

GUATEMALA IN 1909.

The President of Guatemala, in his annual message to Congress, called attention to the peaceful conditions which prevailed throughout the country during the year 1909. He added that the public health had remained in a very favorable condition for the entire year, there having been no case of infectious disease and therefore no quarantine applied at any of the ports.

The financial condition was encouraging, as the public revenues were actually in excess of the estimates of the budget for the year; and although expenses ran beyond the income, some of the deficit being due to variations in the rate of exchange, yet the hope was definitely expressed that negotiations carried on for the readjustment of the currency basis of the country would lead to a healthier financial condition.

One especial source of congratulation is the fact that the cultivation of Indian corn has been very successful, and the country has therefore been enabled not only to supply its own wants, but has even had a surplus for export. The cultivation of rice, too, has made such good progress that it, also, has become an article of export. The sugar crop was increased; the coffee crop was satisfactory, although the excessive production of former years has lowered the net value of the total output. It may therefore be considered a good agricultural year.

No change has been reported in the commercial conditions of the country. Imports seem to have increased while exports decreased. Manufacturing interests developed favorably, and the railways added permanent improvements to their operating facilities.

As yet the Republic of Guatemala has done little to attract immigration into the country, but there has recently been passed immigration laws, and a bureau has been established to draw attention in a systematic way to the splendid opportunity which the country offers to settlers and capitalists alike. The abundant national territory will thus be opened to general development.

FINANCE.

President ESTRADA CABRERA, in his message to the National Assembly of March 1, 1910, announced that national taxes for the year 1909 produced a total of 49,239,722.93 pesos, paper, exceeding the estimate of the budget, which was for 30,500,000 pesos, by 18,739,722.93 pesos.

The expenses of the several departments of Government amounted to 38,412,807.54 pesos, in addition to which there was set apart on account of the public credit the sum of 32,141,453.70 pesos, making a total expenditure for the year of 70,554,261.24 pesos.

During the year 1909 the gold premium advanced from below 1,500 per cent to over 1,600 per cent. At 1,600 the value of a paper dollar would be about 6 cents American gold. At this figure the receipts would amount to \$2,954,383 and expenditures \$4,233,255.

According to a report published by the Government on December 31, 1908, the total paper liabilities of the Republic amounted to 71,884,745 pesos, and the gold liabilities, \$13,694,445. The gold liabilities included the external 4 per cent debt of 1895 of 1,482,800 pounds sterling, principal, and 511,862 pounds sterling, interest, or a total of 1,994,662 pounds sterling. It included also the American syndicate debt, stated at that date to amount to \$2,913,744.

COMMERCE.

Only the totals of foreign trade for the year 1909 have as yet been announced. These figures, which were received by cable, are: Imports, \$5,251,317; exports, \$10,079,219; total, \$15,330,536. The figures for the year 1908 were: Imports, \$5,811,586; exports, \$6,756,143; total, \$12,567,729. This shows a loss in imports of \$560,269, and a gain in exports of \$3,323,076, giving a total gain in foreign trade of \$2,762,807.

By countries of origin, the imports for 1908 were as follows:

United States.....	\$1,718,660
Germany.....	1,258,193
England.....	1,061,843
France.....	209,947
Japan and China.....	118,415
Belgium.....	93,309
Mexico.....	29,640
Central America.....	8,941

The imports of cotton fabrics were valued at \$1,389,756; linen, flax, and jute goods, \$167,879; silk manufactures, \$211,613; and woollen fabrics, \$178,836.

The exports, by countries, were as follows:

Germany.....	\$3,939,207
United States.....	1,776,676
France.....	713,765
British Honduras.....	105,807
Austria-Hungary.....	92,026
Mexico.....	62,325
South America.....	26,252

On the export list coffee occupied the first place, being shipped to the amount of 60,722,000 pounds, worth \$5,697,183; hides, valued at \$266,707, coming next, followed by 668,246 bunches of bananas, worth \$200,474; sugar, \$186,788; rubber, \$158,573; woods, \$144,349;

GUATEMALA COMMERCE FOR 1908.

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EXPORTS BY COUNTRIES OF PROCEDURE

PRINCIPAL~ ARTICLES EXPORTED



chicle, \$59,710; skins, \$24,576; and other vegetable and industrial products, \$15,506; sundries figuring for \$2,274. Sugar, bananas, and hides showed advanced valuations, as compared with the preceding year, and of sugar it is reported that the years 1899 and 1900 alone showed greater shipments.

In the distribution of exports, Germany took 58.31 per cent, the United States 26.30, England 10.56, and other countries 4.83.

The bulk of the coffee shipments were sent to Germany, that country figuring for 35,725,100 pounds on the export list, followed by the United States, 13,965,900 pounds, and England, 5,903,100 pounds. Of the sugar exported, 3,998,100 pounds went to England, 1,917,800 pounds to the United States, and 41,300 pounds to Germany. Rubber shipments were made to Germany of 196,300 pounds, and to the United States, 118,000 pounds. To the same countries were sent the greater part of the woods, 504,609 feet going to the United States, and 283,647 feet to Germany. All of the bananas were sent to the United States.

According to the reports of the United States Bureau of Statistics the imports from Guatemala for the year ending June 30, 1909, amounted to \$3,148,489, as compared with \$2,390,167 for the preceding year. The exports to Guatemala were \$1,706,156, as compared with \$1,730,700 for the preceding year. The increase in imports from Guatemala was due entirely to the increased quantity of coffee, over \$800,000 in excess of the preceding year, the value of coffee imported into the United States being \$2,832,451 and \$2,005,997, respectively. Bananas imported into the United States from Guatemala amounted to \$168,825.

The principal exports from the United States to Guatemala were wheat flour, \$406,417; cotton manufactures, \$267,429; iron and steel manufactures, \$226,859; and meat and dairy products, \$83,943.

INDUSTRIES.

Coffee, which is the leading article of Guatemalan production and export, is produced annually to the amount of about 70,000,000 pounds. For 1908 the total output was smaller than in the three preceding years, the export quantity being a little over 60,000,000 pounds, as against 68,000,000 and 90,000,000 pounds in 1906 and 1907. The estimate for 1909 placed the output at about 81,000,000 pounds.

Banana growing is one of the newer but most profitable industries of the country. The United Fruit Company has planted in the Department of Izabal, about 20 miles from Puerto Barrios on the line of the Guatemala Northern Railway, more than 9,000 acres in bananas, and will clear and plant a greater area. The yield of bananas in Guatemala is, approximately, 15 bunches per month per acre. The development of the banana industry in the neighborhood of Puerto Barrios will, in the near future, greatly increase the shipments of fruit from that port. The company has erected a number of attractive houses, provided with modern conveniences and sanitation, for the use of the employees of the company.

Sugar is profitably grown in increasing quantities, and cotton cultivation has been very much encouraged on suitably conditioned lands by a presidential decree of July, 1908.

In its cultivated lands on the Atlantic, Guatemala affords the prospective rubber planter every condition necessary for the successful development of this highly profitable plant. These conditions are good soil, warm climate, and humidity well distributed throughout the year.

Some years ago an ingenious Dutch planter of Sumatra conceived the happy idea of importing from Manila a sowing of hemp seed and interplanting this among his new plantations of rubber, and has obtained a complete success with the scheme. Manila hemp (*Musa textilis*) is one of the many varieties commonly called "Platano" in Guatemala. The plant is a native of the Philippine Islands, the requirements for its successful growing being similar to those of the banana, but it does not bear fruit. It is interplanted among the rubber trees, and from it is made an imitation silk of good commercial value.

Corn has now disappeared from the list of products imported and is produced in sufficient quantities both to meet the wants of the people and to be exported.

The cattle industry is developing and so great is the interest in it that a successful cattle show was given in the capital during the year.

The encouragement of agriculture in all its branches is the subject of governmental aid, it being desired not only to improve the methods of cultivation employed in the growing of such staples as coffee, bananas, cacao, and sugar, but also to introduce new cultures. The establishment of experimental gardens and stations for the cultivation and distribution of native and foreign plants for private enterprises, the opening of agricultural expositions for the display of the various animal and vegetable products of the country, and the protection afforded to coffee growers are all parts of this progressive policy.

The development of the timber reserves of the country is also occupying official attention, valuable concessions having been recently granted covering the cutting and export of cabinet and dye-woods, the extraction of chicle and other gums, and the adequate stimulation of the rubber industry.

With the purpose of developing the well-known mineral resources of the Republic, the President, on June 30, 1908, promulgated a new code of laws regulating the acquisition and working of mines. The law carries with it the creation of a Bureau of Mines, under the Department of Fomento, which is charged with supervisory direction of measures for the acquisition of new properties, the enlarging of

old ones, and all transactions tending to promote the mining industry in the Republic.

Mines of gold, silver, copper, iron, lead, zinc, antimony, etc., are known to exist in various sections, but have hitherto been inadequately investigated. The lack of development of this important branch of industry has been hitherto attributable in a great degree to insufficient transport facilities, which condition is, however, being rapidly overcome. Placer gold mines are worked, and there is a group of silver mines from which considerable metal is sent abroad.

The manufacturing interests of the country are confined chiefly to the textile industry, raw cotton and cotton yarns figuring on the import list.

The textile industry is making notable progress. A factory established at Cantel, in the Department of Quezaltenango, imports large quantities of raw cotton from the United States, Peru, and Mexico, a recent shipment from New Orleans covering 400 bales.

Candles and soap are being manufactured, one company having obtained authority from the Government to import annually 3,000 quintals of paraffin and 2,000 quintals of stearin free of duty.

In the capital, as well as elsewhere, ice factories exist, and the manufacture of furniture has become a valuable national industry, owing to the abundance of fine cabinet wood. Small works produce footwear, straw hats, pottery, etc. Tentative efforts are being directed toward the employment of the twigs of a native plant for the manufacture of wicker furniture, and for the treatment and preparation of henequen fiber at San Cristobal, the Government having granted free entry for the requisite apparatus. Breweries, sugar mills, and tanneries also are profitably conducted.

RAILWAYS AND INTERIOR WATERWAYS.

The railways of Guatemala have a total extent of 700 kilometers (435 miles), all of which have a 3-foot gage. There are 5 systems, as follows:

The Verapaz Railway, on the eastern coast, running between Panzos and Pancajche, a distance of 28 miles, is a German company, and gives outlet to the rich Verapaz district of the Republic through Lake Izabal, the Rio Dulce, and the port of Livingston.

The Guatemala Central, the oldest line in the Republic, ran originally from San Jose, on the Pacific, to Escuintla and later to the city of Guatemala. This company finally extended its line westward to Mazatenango. Here, a few years ago, it was joined by the Occidental Railway, built from Champerico, on the Pacific, through Caballo Blanco and Retalhuleu as far as San Felipe. The Central and the Occidental are now combined under one management and have a

total length of 189 miles. The Ocos Railway starts at Ocos, on the Pacific, runs parallel to the Suchiate River, the boundary between Guatemala and Mexico, as far as Ayutla, where it turns to the east and ends at Vado Ancho. Its length is only 23 miles.

The newest railway is the Northern, or Guatemala Railway, from Puerto Barrios, on the east coast, to the city of Guatemala, a distance of 195 miles.



MAP SHOWING RAILROADS IN OPERATION AND PROJECTED LINES IN GUATEMALA

From San Felipe a line has been projected to Quezaltenango, and a survey has been made to connect the latter place with the city of Guatemala through the interior and elevated part of the country. It is improbable, however, that any construction work will be done on these lines for several years.

The Guatemala Railway Company has contracted with the National Government to build a railway from Zacapa to the frontier of El Salvador. This line will be extended, under a concession from the Gov-

ernment of Salvador, to Santa Ana, in that Republic, where it will join the Salvador Railway.

One of the most important railway concessions recently granted by the Government of Guatemala to the Guatemala Central Railway Company is that of the line which will run from Coatepeque, lying between Caballo Blanco on the Occidental Railroad and Vado Ancho on the Ocos Railroad, to the Mexican frontier, and which will form another link in the great Pan-American system. Construction of this line will begin on the completion of the road from Caballo Blanco to Coatepeque in the Republic of Guatemala.

Concerning the proposed connection between the Guatemalan railroad system and the Pan-American branch of the railways of Mexico, it is stated that a surveying party is engaged in selecting the preliminary route of the line to the Mexican frontier, and after the report of the survey is received and considered, the final route will be selected. A purchasing department of the road is to be established in New York, and all the materials and supplies bought in the United States for the railway will be contracted for through this department. Construction work will be commenced during the dry season, and the line will be pushed forward to completion as rapidly as possible.

A concession has been granted for the construction of an international bridge over the Suchiate River, on the boundary line between Guatemala and Mexico. The concession, which is a liberal one, was granted in order to assist in international and intercontinental communication, and provides for the payment of a bridge toll not to exceed that collected at the railway ports of entry on the border between Mexico and the United States. The construction of the bridge is to begin within thirty days after the signing of the protocol between Mexico and Guatemala for the establishment of an international bridge.

The interior waterways of Guatemala are very extensive, embracing a considerable number of rivers and lakes, some of which are navigable; they form important means of communication and transportation. Among the rivers the Usumacinta River is the most important; the greatest length of this river, however, flows through Mexican territory, and, owing to the numerous bars, is only navigable for small craft. The Motagua is navigable for over 100 miles for small vessels, and the Polichic is navigable as far as the inland port of Panzos. This river empties into the Izabal Lake, the largest lake in Guatemala, which in turn communicates with the River Dulce, emptying into the Gulf of Honduras, near the port of Livingston, and thus the three combined form an important waterway. Lake Izabal is 58 miles long by 12 miles wide, with a depth of nearly 40 feet throughout. Other lakes are the beautiful Atitlan, situated at an

altitude of 5,254 feet, and completely surrounded by mountains; the Amatitlan, the Peten or Itzal, and numerous others. The inland ports are Izabal, on Lake Izabal; Panzos, on the River Polichic; and Gualan, on the Motagua River, none of which, however, can be reached by ocean-going vessels owing to the bars at the mouths of the rivers, and are therefore accessible only for vessels of light draft.

MEANS OF APPROACH.

The Republic of Guatemala is accessible both from the Atlantic and Pacific oceans, its principal ports on the Atlantic seaboard (Gulf of Honduras) being Puerto Barrios and Livingston, and on the Pacific, San Jose de Guatemala, Champerico, and Ocos. From New York, New Orleans, and Mobile the Atlantic ports may be reached by steamers of various lines, and the Pacific ports may be reached by steamers on the west coast which touch at points between Vancouver, B. C., and Panama.

From Mexico, it is possible at present to approach by the Pan-American Railway to Mariscal, on the frontier; the Suchiate River is crossed by canoe, but a bridge is about to be built. From Salvador a well-traveled highway leads to Guatemala City.

POSTS AND TELEGRAPHS.

Guatemala has maintained an excellent postal service since 1879, having become a member of the International Postal Union in 1881. On January 1, 1909, there were 192 post-offices in the country. The number of pieces of mail matter handled during 1909 greatly exceeded the total number of any preceding year, and on this account it was found necessary to increase very materially the postal facilities both as regards personnel and offices.

The receipts from the posts in 1909 likewise exceeded by 241,265 pesos, national money, the revenues derived from this source in 1908. In the interior of the Republic, it is safe to say, there is scarcely a place, however insignificant, which does not enjoy the advantages of postal communication with the outside world.

The telegraph and telephone system now comprises lines aggregating in length 4,196 miles and is operated from over 200 offices by staffs numbering 863 employees.

EDUCATION.

The value of higher education is thoroughly appreciated by the present Executive, and it is to his initiative that the festivals of Minerva, which mark the close of the schlastic year throughout the country, are due.

The higher educational institutions established at Guatemala City and Quezaltenango include schools of law, medicine, surgery, dentistry, pharmacy, and commerce. These schools, especially that of medicine, enjoy a high reputation throughout Latin America, and attract many students from the neighboring Republics. There are also night schools for artisans, the pupils of which are exempt from military service.

The Secretary of Public Instruction is a member of the President's cabinet. The country maintains a national conservatory of music and a school of fine arts, in both of which the instructors are largely European and American artists. Especial encouragement is given in the schools to manual and mechanical training. Many Guatemalan youths are sent abroad each year to be educated at government expense.

In 1908 there were 1,330 schools in the country, attended by 51,280 pupils, showing an increase of 68 schools and 780 scholars as compared with 1907.

In reviewing scholastic conditions for the year 1909 the President in his annual message stated that many new schools have been established, among which may be mentioned the Academy of English, which is equipped with an efficient personnel of progressive teachers competent to instruct in both the literary and spoken language.

The Government has adopted the system of instruction prepared by Prof. JOHN CROSS for teaching the English language by the use of the phonograph in the public schools. An edition of 5,000 copies of the introductory text will be printed by the Government, 2,000 of which are to be delivered to Mr. CROSS, the remainder to be the property of the Government. In addition to the introductory textbook, pupils in the high schools are required to use the phonographic reader.

The municipality of the city of Guatemala has appropriated 10,000 pesos to be invested in supplies and equipment for use in the public schools of that city.

GENERAL INFORMATION.

The President of the Republic, under date of June 1, 1909, accepted the invitation of the Belgian Government to participate in the international exposition to be held in Brussels in 1910. The executive further confirms the policy of the administration in participating in such expositions at home and abroad as an approved method of accrediting the products of the Republic in the markets of the world. Provision has been made for a representative exhibit of the country's products and the dissemination of information and data concerning them.

The Government of Guatemala on April 29, 1909, formally approved the conventions subscribed to by the delegates of nations assembled at The Hague Conferences of 1907.

The Republic was also represented at the Eighteenth Reunion of the Association of Military Surgeons of the United States, held in Washington, D. C., October 5 to 9, 1909.

The Guatemalan Government has paid honor to the memory of ROBERT FULTON by placing a bronze bust of the great inventor in the principal park of the capital. This action was taken in consequence of a presidential decree of September 8, 1909, and the bust was placed in position on October 10, 1909, the date of the hundredth anniversary of the application of steam to fluvial transport.

A special delegation was designated to represent the Republic at the Hudson-Fulton celebration of the discovery of the Hudson River and the successful application of steam to navigation thereon.

An additional demonstration of the increasing cordiality and sincere friendliness of the relations which bind Guatemala to the United States of America was the visit of courtesy paid the Republic early in the year by the cruisers of the Pacific Squadron, under the command of Admiral SWINBURNE, who, as a national guest, was accorded a most enthusiastic welcome at Guatemala City.

The President in his annual message stated that more than half a million pesos have been spent during 1909 in works of sanitation calculated to protect the public health. The work of vaccination has been pushed with such vigor as to make Guatemala practically immune from smallpox and to cause her to occupy an enviable position among the nations of the world as regards attention bestowed upon public health and sanitation.





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PRESIDENT MONTT, OF CHILE, AND PRESIDENT TAFT, AT BEVERLY, MASS.

This photograph was taken August 6, 1910, on the occasion of the visit of President Montt while en route to Europe to President Taft at his summer home.

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B U L L E T I N

OF THE INTERNATIONAL BUREAU OF THE AMERICAN REPUBLICS

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NO. 2

THE delay in the publication of the July issue of the MONTHLY BULLETIN, containing the first section of the Annual Review, caused many persons to write that they had not received it. This delay was unavoidable. It was impossible to obtain and systematize the necessary data for the reviews of the different countries in time to actually distribute the July BULLETIN in that month. Many of the Latin American Republics do not have their statistical data in such form for the previous calendar year that it reaches the Bureau before the middle of July. It is the intention of the Director to publish the Annual Review next year in the month of August, so that all the necessary material may be at hand and there may be no delay in the date of issue. No such space was given this time as before to photographs, diagrams, etc., because it was needed for the descriptive matter which would answer the thousand and one questions that are all the time pouring into the Bureau about these countries. This Review, as compiled in the July and August numbers, taken as a whole, will be the most complete study of all America, along industrial, commercial, and general lines which has ever been published, and should prove most useful and valuable for consultation and reference. The two issues, if necessary, can be bound together in one volume, or the review of an individual country can be obtained in a separate pamphlet.

The material published in July and in August will reappear in summarized form in the Latin American edition, printed in Spanish, Portuguese, and French. There will necessarily be a corresponding delay in these editions, because the matter must be carefully translated.

The English edition of the Annual Review this year contains one prominent feature which was omitted last year—a review of the United States corresponding to that of the other American Republics. There is a special demand from Latin America for information concerning the United States, and it is hoped that this summary will supply the want.

In the September issue of the MONTHLY BULLETIN will appear a résumé of the reviews of all the countries. This will be republished in a pamphlet corresponding in size to those of the individual countries, and will include a large amount of comparative information which will give an excellent idea of the commerce, industries, progress and development of the twenty-one American Republics taken as a whole, and also of their relations with each other.

HAITI

GEOGRAPHICAL SKETCH.

The Republic of Haiti, which occupies the western half of the island of the same name, has an area of 10,200 square miles, equal to the States of New Hampshire and Rhode Island, and a population of 2,000,000. Haiti is one of the most populous of the American Republics, taking into account its area, with 196 inhabitants to the square mile, or more than six times as dense as the population of the United States.

Haiti is a land of mountains and valleys, shaped like an immense $\cap$, with the arms pointing westward and inclosing the Gulf of Gonaives. In the center of the gulf is the island of Gonave, and around its shores are several fine natural harbors, where the largest ocean-going ships may find shelter.

The principal products of Haiti are coffee, cacao, cotton, tobacco, and sugar. In the dense forests which cover the mountains, and the deep valleys intervening, there is a wealth of flora unsurpassed in the western world. The cabinet woods are well known, and there is an abundance of timber for structural purposes.

Haiti possesses considerable mineral resources quite undeveloped. Gold, silver, copper, iron, antimony, tin, sulphur, coal, kaolin, nickel, gypsum, limestone, and porphyry are found, but are little worked. Some effort has been made to work copper mines in the last few years, and concessions have been granted for mining that article, as well as iron.

A number of small islands belong to the territory of the Republic; Gonave, in the gulf of the same name, about 40 miles long; La Tortue, near Port de Paix, 22 miles long; La Saona, about the same size as La Tortue; Alta Vela; Les Caimites, and a number of smaller islands.

HISTORICAL SKETCH.

The island was discovered by COLUMBUS on his first voyage, and remained as a whole under Spanish dominion for two hundred years. But this dominion, as regards the western end, was not uncontested. The buccaneers, English, Dutch, and French, but chiefly French, after the destruction of their first rendezvous on St. Christophers seized, in 1530, the small island of Tortuga, a few miles off the north-west coast of Haiti, and from this stronghold the Spaniards were unable to dislodge them. On the contrary, the buccaneers made constant incursions to the mainland and even attempted settlements

thereon. These settlements became permanent about 1630, and from then to the date of the treaty of Ryswick, in 1697, the hold of the French adventurers on the western half of Haiti became stronger and stronger. By the treaty of Ryswick, Spain ceded to France the country held by the adventurers, but the line of demarcation between the French and Spanish parts of the island was not accurately laid out until 1770.

Within a little more than fifty years following the first Spanish settlement of the island the native inhabitants were practically exterminated. This led to the introduction of negro slaves from Africa, who were needed to take the place of the Indians in the mines and particularly in the fields, for during the seventeenth and eighteenth centuries Haiti had become a country of large plantations

owned by rich French landholders. At the beginning of the French Revolution the population of Haiti was overwhelmingly black, but slave, and controlled by a handful of white French soldiers, land-owners, and overseers.

In 1793, France being then at war with England, the English General WHITELOCKE invaded the country. Freedom was offered by the French authorities to all slaves who would enroll themselves in the army against the enemy. This was followed soon afterwards, in August of the same year, by a decree abolishing slavery. As a result of the military assistance rendered by the blacks



COLUMBUS'S CARAVAL.

the English were forced to evacuate the island.

The principal credit for successful resistance to the English was due to TOUSSAINT L'OUVERTURE, a former runaway slave, who upon the publication of the emancipation proclamation returned from the Spanish part of the island to assist and finally to lead his fellow freedmen against the invaders. TOUSSAINT was at first honored by the French and even made military governor, but afterwards fell under suspicion. In May, 1801, a constitution was promulgated by TOUSSAINT, which act was treated by Napoleon as rebellion. From this date began the struggle for independence, which lasted nearly three years. In 1802, TOUSSAINT and other leaders were induced by LECLERC, the French commander, to surrender under guaranties. Faith was not kept by the French, and TOUSSAINT was sent as a

prisoner to France, where he died. The blacks again arose under DESSALINES and CHRISTOPHE, and in December, 1803, the French abandoned the contest.

DESSALINES, on January 1, 1804, promulgated the declaration of Haitian independence and was himself proclaimed Emperor. He ruled until November, 1806, when he was assassinated. HENRI CHRISTOPHE was, in the following month, elected President under a new constitution establishing the Republic. He refused the presidency and proclaimed himself king with the title of Henri I. This led to civil war and a division of the country, Henri I ruling as king in the north and ALEXANDRE PÉTION as president in the south. PÉTION died in 1818 and was succeeded by JEAN PIERRE BOYER. Henri I committed suicide in 1820, and BOYER became President of the whole country. He extended his authority also over the Spanish end of the island, now the Dominican Republic. In 1844 the Dominicans threw off the yoke of Haiti and became independent. In 1849 FAUSTIN SOULOQUE reestablished the Empire with himself as Emperor Faustin I, but six years later, on January 15, 1859, FAUSTIN fled, and the Republic was once more established.

The present incumbent of the presidency is Gen. ANTOINE F. C SIMON, inaugurated December 17, 1908.

CONSTITUTION AND GOVERNMENT.

The constitution of the Republic of Haiti was proclaimed on the 9th day of October, 1889, and by its provisions the unitary, republican form of government was adopted, the administration of which is vested in the legislative, executive, and judicial branches.

The Legislature is composed of two chambers, a Chamber of Representatives and a Senate, the two together composing a National Assembly. The Chamber of Representatives consists of 96 members, elected by the people for a term of three years, and the Senate of 39 members, chosen by the Representatives from lists furnished by a board of electors and by the President of the Republic, for a term of six years. The Senate is renewed by thirds every two years.

A permanent committee of seven Senators is elected annually by the Senate to represent the National Assembly during recess and to prepare all unfinished business.

The President of the Republic is elected by the National Assembly for a term of seven years and can not be reelected except after an interval of at least one term. In case of death, resignation, or disability, the executive power rests in the Secretaries, acting as a body, who exercise the said authority until new elections can be held.

The cabinet consists of six Ministers or Secretaries, as follows: Minister of Foreign Affairs and Public Instruction, Minister of War and Marine, Minister of Interior and Police, Minister of Finance

and Commerce, Minister of Justice and Worship, and Minister of Public Works and Agriculture.

The President receives a salary of £4,800 (\$24,000) per annum and the secretaries £1,200 each.

The Supreme Court is the highest tribunal of justice. There are also five Courts of Appeals, one for each Department, a number of district and municipal courts, and other tribunals of special jurisdiction.

INTERIOR GOVERNMENT.

The country is divided into five Departments, which are again divided into "*arrondissements*," these into "*communes*," and the latter into sections or districts. The Governor and other executive officers of the Department are appointed by the President of the Republic. The district and communal councils are elected by direct vote, the councils having charge of the financial administration of the commune or district and being consulted by the executive officer on all matters of importance.

The Departments of Haiti and their respective capitals are:

Department of the—	Capital.
North.....	Cape Haitien.
Northwest.....	Port de Paix.
Artibonite	Gonaives.
West.....	Port au Prince.
South.....	Les Cayes.

Port au Prince is the capital of the Republic. It has a population of 60,000. Other important cities are: Jeremie, with 35,000, Cape Haitien, with 30,000, and Aux Cayes, with 25,000 inhabitants.

ARMY AND NAVY.

The national army of Haiti, without taking into account some 2,000 gendarmes, numbers 12,060 officers and men. The special "Guard of the Government" is organized as follows: One regiment of artillery, 4 regiments of infantry, 2 battalions of chasseurs, 1 regiment of cavalry, and 2 battalions of riflemen. In the army of the line there are 38 companies of infantry, 2 regiments of artillery, and 50 companies of gendarmes.

The navy comprises 6 cruisers.

HAITI IN 1909.

With the formal assumption by Gen. ANTOINE F. C. SIMON of the executive office, by legislative action, in December, 1908, the country entered upon a new historical epoch. High tribute was paid the new President by the National Assembly in communicating the result of

their electoral vote, and stress was laid upon the opportunities for patriotic service in the Republic.

The numerous concessions granted by the Government for the exploitation of railways and industries within the Republic indicate the efforts being made to develop the resources of the country. Many of the concessions are held by companies in the United States and much of the equipment and machinery furnished by American concerns.

FINANCE.

The budget of expenditures for the fiscal year ending September 30, 1910, is estimated at \$3,329,010.35 American gold and 8,246,841.74 gourdes, Haitian money.^a In the estimated expenses the sum allotted to foreign relations is \$122,682.33 American gold, and 18,880 gourdes, Haitian money; to agriculture, \$15,420 gold and 286,444 gourdes; to public instruction, \$13,040 gold and 1,462,816 gourdes; to finance and commerce, \$23,972.56 gold and 964,978.56 gourdes; to public debt, \$2,661,241.05 gold and 1,117,334.67 gourdes; and to public works, \$19,000 gold and 490,840 gourdes.

The budget of receipts is made up of the following items:

	American gold.	Gourdes, paper.
Customs duties.....	\$3,621,181.59	2,393,571.89
Public lands.....	8,200.00	45,948.43
Postage stamps.....	20,201.26	18,619.66
Registration and mortgages.....	27,865.52	40,456.26
Telegraph.....	16,195.16	26,263.70
Notary fees.....		10,547.48
Moniteur (official journal).....		553.00
Documentary stamps, license, and passport duties.....	98,083.72	71,641.64
Stamped paper.....		97,295.79
Hydraulic Bureau of Port au Prince.....		63,617.44
Various receipts.....	165,500.00	5,458,795.60

From the amounts set down in the column of the receipts in American gold must be deducted the sum of \$628,489.92 which was converted at a gold premium of 400 per cent and carried to the column of receipts in Haitian money for 3,144,244.60 gourdes. In this same column are listed as receipts 1,750,000 gourdes from the loan of 2,500,000 gourdes.

The gold gourde is worth 96.5 cents.

The total foreign trade of the Republic for the calendar year 1909, according to information received by cable from the United States Minister to Haiti, amounted to \$16,720,996, of which \$5,712,513 was imports and \$11,008,483 was exports.

^a The gourde, paper, may be estimated at 20 cents American gold. This represents a premium on gold of 400 per cent.

COMMERCE.

According to the reports of the United States Bureau of Statistics for the year ending June 30, 1909, there was imported into the United States from Haiti goods to the value of \$525,947, compared with \$689,045 for the year ending June 30, 1908.

The value of exports from the United States to Haiti for the same year was \$3,937,159, as compared with \$3,649,172 for the preceding year.

The principal imports from Haiti were hides, \$137,207; cacao, \$90,715; coffee, \$89,968; cabinet woods, \$70,127; and logwood, \$68,160.

The principal exports to Haiti were cotton cloth, \$1,247,688; wheat flour, \$829,019; soap, \$265,028; lard, \$240,801; tobacco, \$109,080; and pickled pork, \$107,724.

The United States consul at Port au Prince reports the following as Haitian exports, by quantities, for the year ending December 31, 1909:

Beeswax.....	pounds..	122, 473
Cedar wood.....	do....	424, 000
Cocoa.....	do....	4, 612, 361
Coffee.....	do....	41, 342, 570
Cotton.....	do....	3, 615, 972
Cotton seed.....	do....	6, 297, 000
Fustic wood.....	do....	216, 000
Fustic wood roots.....	do....	99, 000
Goatskins.....	do....	327, 890
Hides.....	do....	160, 685
Honey.....	gallons..	641, 435
Lignum-vitæ wood.....	pounds..	8, 632, 294
Logwood.....	do....	76, 585, 810
Logwood roots.....	do....	18, 466, 270
Mahogany.....	feet....	66, 875
Orange peels.....	pounds..	462, 197
Pite.....	do....	41, 005

The report submitted to Congress by the Secretary of Commerce, which was published September 25, 1909, in the "Moniteur Officiel" of Haiti, covered the commercial conditions of the country during the fiscal year 1907-8 (October 1, 1907, to September 30, 1908) and the first three months of the fiscal year 1908-9.

The import trade of the Republic for the latter period amounted to \$1,177,508.58 against \$1,577,317.17 in the same period of the preceding year, or a decrease of \$399,808.59 for the first three months of the year 1908-9. This commerce was distributed as follows among the countries of origin: United States, \$823,931.16; France, \$128,709.18; England, \$162,844.45; Germany, \$33,951.03; other countries, \$28,062.81.

The imports of specie from the United States during the period in question amounted to \$154,129.89 against \$281,000 in the same

period of the preceding year, or an increase in favor of the latter period of \$126,870.11.

The export commerce for the first quarter of 1908-9 amounted to 3,200,000 gold gourdes against 4,483,415 gourdes in the same period of 1907-8, or a decrease of 1,283,415.65 gourdes for the period 1908-9.

The following table shows the principal articles and products, together with the quantity, shipped abroad:

	Pounds.
Coffee.....	11,689,825
Campeche (logs).....	9,324,960
Campeche (roots).....	1,400,000
Cacao.....	1,352,556
Lignum vitæ wood.....	525,006
Cedar wood.....	52,000
Cotton seed.....	68,881
Sheepskins.....	51,639
Cotton.....	36,309
Orange peel.....	26,374
Mahogany.....	17,000
Ox hides.....	15,563
Wax.....	21,624
Corn.....	48,298
Pita.....	18,298
Cocoanuts.....	10,758
Honey.....	9,448
Copper.....	7,818
Horns.....	3,074
Starch.....	2,551
Pistachio nuts.....	2,222
Guaiac gum.....	1,636
Yellow wood.....	1,000
Tortoise shell.....	42

Imports for the fiscal year 1907-8 amounted to \$4,701,160.80, distributed among the countries of origin as follows: United States, \$3,316,827; France, \$552,460; England, \$466,836; Germany, \$134,074.58; other countries, \$230,962.80. Compared with the commerce of the preceding year, which reached \$4,451,730.57, an increase of \$249,430.23 is noted for 1907-8. In this import trade increases are noted in the following countries of origin: United States, \$233,634.79; England, \$46,922.66; other countries, \$42,508.08; while with France and Germany decreases of \$52,113.13 and \$11,522.17, respectively, are noted. The imports of specie from the United States amounted to \$806,986.50 in 1907-8 compared with \$351,465 in 1906-7, or an increase of \$455,521.50.

INDUSTRIES.

The industries of the country are mainly agricultural, the most important product being coffee of excellent quality, but the export duty levied upon this article greatly hinders the development of this

branch of industry. The estimated area in the Republic devoted to coffee is placed at 125,000 acres, the plant having been introduced into the country some two hundred years ago. The period of production of each plantation is estimated to be about twelve years. Climatic and soil conditions are wonderfully favorable to the industry, and exports to the amount of 100,000,000 pounds annually were formerly made by Haitian growers. At present shipments do not total more than half of that amount.

Cacao is also grown extensively, the output for 1909 being estimated at 6,360,000 pounds, and cotton is exported in increasing quantities. Of the cotton grown in Haiti the fiber is not so long as that of the United States, although this is a condition that could be improved by proper seed selection and cultivation. Cheap lands and cheap labor make this branch of industry an attractive and remunerative one if undertaken on a large scale.

The culture of pite (American agave) has been taken up. The cultivation of tobacco is extending, and the manufacture of cigars and cigarettes has been successfully engaged in.

The soil of the country is well suited for tobacco growing. Only a small quantity of this article is raised, however. One plantation, conducted on scientific principles, is producing tobacco of a fine grade.

There are numerous sugar plantations in the country, but no refineries. Rum and other spirits are distilled. Logwood is the most important of the many valuable woods shipped from the Republic. Soap, candles, and matches are manufactured in the country, while three-fourths of the meat consumed comes from the Dominican Republic.

The building of the proposed railroads will open to commercial, agricultural, and industrial activity the richest part of the country, which hitherto has been of no benefit to the Republic, because it was inaccessible except by pack animals. Part of the territory which will be opened by these railroads is covered by forests of the best cabinet and dye woods. Good pasturage abounds on the plateaus of the interior, and on the plains are rich agricultural soils, with healthful climate, suitable for the growing of cereals and cotton, while in the vicinity of Cape Haiti, Ouanaminthe, and Port au Prince are rich banana and sugar soils. The new land thus brought within the practical range of the markets is plentiful and cheap, and labor at moderate wages may be secured without difficulty, offering an inviting field for capital.

The mineral resources of the Republic, consisting of gold, silver, copper, iron, antimony, tin, sulphur, coal, kaolin, nickel, gypsum, and limestone, are as yet undeveloped. Remains of an ancient gold mine have recently been discovered near Ouanaminthe on the Dominican frontier and iron deposits are known to exist in the same

locality, while at Fort Dauphin and in the Limonade district, respectively, deposits of copper and iron oxide have been discovered. Near Les Cahobes considerable outcroppings of soft coal are reported, and at Camp Perrin, some 7 leagues inland, there is a coal mine showing numerous rich veins. In the vicinity of Jacmel there are copper and silver deposits which have never been worked, and at Terreneuve, distant about four hours' travel from Gonaives, a copper mine is in exploitation by a syndicate of Haitians of German descent.

From a geological point of view and from surface indications reported by scientists and prospectors who have visited the Republic of Haiti, there are strong probabilities that excellent petroleum deposits will be discovered at no distant day within the limits of the nation. This belief is strengthened by results obtained from drilling and practical exploration on the south coast of the province at Azua, near Ocoa Bay, in the Dominican Republic, about 20 miles east of the Haitian boundary line. Several years ago an American company sunk a well at this place to a depth of 940 feet, through strata of shale, slate, and sand of the Cretaceous period of geologic time. Oil was struck at this depth, the well proving to be a gusher, the gas pressure being so great, it is said, that at times the oil would rise in the air to a height of 180 feet. The capacity of this well was estimated at the time to be 2,500 barrels per day. The grade of the oil from the bottom of the well, as reported by the St. Louis company that did the boring, was 24° Beaumé, with high percentage both as to burning and lubricating qualities.

Judging from reported discoveries in various parts of the country, the surface indications as to the existence of petroleum deposits in Haiti are quite numerous and widely separated from one another. Bitumen of good quality has been found near the village of Leogane, within less than 2 miles of the seashore. This bitumen, when extracted from the deposit, is soft, having about the consistency of ordinary beeswax, and is apparently the residue of petroleum forced upward by gas pressure along a fracture from depths below. The plain and vicinity of Leogane and the surrounding country would seem to be a promising field for the discovery of petroleum deposits and one worthy of careful and thorough scientific investigation.

Bitumen is also found near Cape Haitien, and from the appearance of the product and the geologic formation of the surrounding country it is probably the residue of petroleum seepage from a fracture or seam in the rocks. Asphalt has been encountered in the south of the island, and an officer of the Haitian navy discovered petroleum in Microgoane in the western part of the Republic. Two petroleum springs were reported to have been found at Furcy, near Petionville, on the southern slope of the mountain range bordering the Cul de Sac plain on the south. At Hinche, pool petroleum was discovered on

the great plateau, and at a point on the Marolice River in the central part of the great plateau, about two hours' ride northerly from the village of Tomonde, a whitish oil floats on the surface of the water. Bitumen or asphalt is also exposed in several places on this same plateau or tableland.

It is the policy of the Government to aid so far as possible enterprises having for their object the development of the agricultural and industrial resources of the nation, and with this purpose in view a concession was recently granted to encourage the development of the textile industry in the Republic. The grantee secures for a term of forty years the right to gather textile plants growing on public lands, leased to him at a low rental. The raw material indispensable in running the machinery of the factory, such as coal, kerosene, and lubricating oil, will be admitted free of duty. The grantee agrees to pay into the national treasury \$2 gold on each ton of product exported.

The manufacture of shoes within the Republic has reached a point where the output is nearly sufficient to meet the needs of the home market, with the result that importations of foreign shoes have almost entirely ceased within the past eight years. Previous to that period nearly all of the finer grades of shoes for men, women, and children were imported from France, the United States furnishing some of the cheaper grades for women. One of the largest establishments of this kind in the Republic employs all Haitian workmen, the proprietor superintending the cutting and fitting. The tannery in connection with this plant furnishes employment to some 200 hands, all of whom are Haitians with the exception of the proprietor.

The chrome and combined dyes are all imported from the United States, although the bark used by the smaller tanneries, of which there are many, is the mangrove, native of the country, and which is considered to possess fine tanning qualities. Difficulty is found in obtaining the native bark in sufficient quantity, which necessitates the importation of oak bark from the United States. Due to the fact that the supply is limited, the price for raw hides is nearly on a par with that in the United States. Goat, calf, and sheep skins are plentiful at low prices.

The Government has recently revised the law relating to taxes imposed upon those exercising professions or engaged in commerce in the Republic.

RAILWAYS AND INTERIOR WATERWAYS.

There are in Haiti about 98 kilometers (64 miles) of railway. Among the more important government measures which bear directly upon the development of the country are to be mentioned the numerous railroad concessions which have been granted to connect Gonaïves with Hinche (open as far as Passarelle), Cape Haitiën with Port au Prince, Ganthier with Fonds Parisien, Port au Prince with Leogane, Leogane with Aux Cayes, Cape Haitiën with Ouanaminthe, and Aux Cayes with Perrin. The line from Aux Cayes to Perrin, 17½ miles in extent, has been contracted for. There is at present a line of railway from Cape Haitiën to Grand Rivière, a distance of 15 miles, from which point a line will be constructed to Port au Prince. A light railway has been constructed from Port au Prince to Lake Etang Saumatre, a distance of 28 miles, this railway being intended ulti-



MAP SHOWING THE RAILROADS IN OPERATION WITH PROJECTED LINES, IN HAITI

mately to connect the capitals of Haiti and the Dominican Republic. Port au Prince has 5 miles of tramway.

During the year under review the railroad tariff has shown a continued development, the total receipts for the year from the different lines—Plaine line, tramways, Carrefour—amounting to 238,520.21 gourdes, and \$311.25 American gold, and the operating expenses to 190,688 gourdes, Haitien money, and \$29,559.59 gold.

Up to the present the most important railroad concession ever granted by the Haitien Government is the one which was awarded to Mr. JOHN CRETH MARSH, President of the Board of Directors of the Haitien National Railways Company, for the construction of a line running from Gonaïves to Hinche and from Cape Haitiën to Port au Prince. The first section of 20 kilometers, although not completely terminated, was opened to traffic, but owing to the nonful-

fillment of the terms of the contract by the concessionaires and counter charges on their part, the concession is being held up, the Government having appointed a commission to investigate and make a report on the subject. On April 16, 1910, a new contract was drafted by the Secretary of Agriculture and Public Works and Mr. MARSH, subject to the approval of Congress, according to the terms of which the two concessions accorded by former contracts for the construction of two railroad lines, one from Gonaives to Hinche and Gros Morne and the other from Cape Haitien to Port au Prince and Archahaie, sanctioned by laws voted September 16, 1906, and July 17, 1907, are to be consolidated so as to only form one system.

Among the numerous rivers of Haiti the Artibonite, the Trois-Rivieres, and the Grande Anse are the most important. The Artibonite, the largest stream on the island, is navigable for some 100 miles and forms an important waterway, a regular line of steamers plying between Grande Saline, at its mouth, and the interior. The other rivers, owing to their swift currents, are not navigable. Lake Etang Saumatre, 22 miles long and 60 miles wide, is the largest of the lakes and is navigable.

One of the most fertile and beautiful places in the Republic of Haiti is the plain of Leoganes, situated about 20 miles southwest from Port au Prince, the capital of the Republic. Its total area is not large, approximating about 90 square miles, of which some 60,000 acres are under cultivation. Geologists attribute the existence of this plain to a recession of the coast line mountain range inland to an average distance of about $7\frac{1}{2}$ miles over an approximate length of 12 miles to the point where the mountain range again nears the shore of the bay.

The plain slopes gradually in a southwesterly direction to the waters of the bay, and three small rivers, having their source in the mountain range beyond, traverse the basin on their way to the sea, dividing it into four more or less unequal sections. These streams furnish a never failing supply of pure water to the inhabitants of the valley and lend a charm and picturesqueness to the entire plain that makes it not only one of Haiti's most productive gardens, but also a spot noted for its loveliness and beauty in a region celebrated for the natural splendor of its scenes. All kinds of tropical productions, from beans to bananas, from cotton to coffee, from sweet potatoes to plantains, from cacao to cocoanuts, from mangoes to mahogany and other precious woods, are yielded in abundance, and with but little care, from its fertile soil and wooded hills. Sugar cane also grows to perfection in this beautiful plain, and a great many other useful tropical products are indigenous to the soil.

A railroad has been planned into this rich district, and when constructed and opened to traffic a great impetus will be given to the development of this favored zone, and the enormous production of which the plain of Leoganes and its surrounding hills is capable of yielding will find easy access to the markets of the world through Port au Prince, the principal seaport and metropolis of the Republic. The concession under which the railroad referred to above is to be built was granted by the Haitien Congress to the *Compagnie des Chemins de Fer de la Plaine du Cul de Sac* on September 14, 1906, and was duly promulgated by the President of the Republic on the 29th of the same month and year. Under this concession the company has the exclusive right to extend its line from Port au Prince to Leoganes, a distance of about 20 miles. Nearly 5 miles of this line have already been built and are in operation—that is to say, from Port au Prince to Carrefour—so that about 15 miles of the road still remain to be constructed.

Some time ago the concessionaires sent an engineer to investigate the advisability of making this extension, and he reported that he believed the road would be a paying proposition from the very beginning, and recommended its construction at the earliest moment possible. The part of the road already built is estimated to have cost about \$12,000 per mile. It is solidly constructed as to roadbed and superstructure, and its maintenance is being well kept up. The first six months' operations of this railroad netted the company at the rate of about .7 per cent per annum on its original cost, and demonstrates that the completion of the line to Leoganes would undoubtedly be a paying proposition from the time it was opened to traffic. It is to be hoped that this railroad, which will penetrate the heart of one of the most fertile plains of the Republic, will soon be constructed in order that the Leoganes Plain may be put into easy communication with the outside world and undergo a period of great and rapid development of its rich and varied natural resources in which the entire country would participate.

MEANS OF APPROACH.

The Republic has 11 ports, viz, Port au Prince, the capital of the Republic and the trade center, Cape Haitien, Port de Paix, Gonaives, situated on the great bay of the same name, St. Marc, Petit Goave, Miragoane, Jeremie, Aux Cayes, Aquin, and Jacmel.

Haiti can be reached from New York by the Atlas Line steamers, which sail every week, and by the Royal Dutch West India Mail, sailing every two weeks and calling at the Haitian ports of Port au Prince, St. Marc, Petit Goave, Aux Cayes, and Jacmel. The country is also reached by direct steamers from European ports and from Cuba.

POSTS AND TELEGRAPHS.

Haiti became a member of the International Postal Union in 1880. There are over 30 post-offices in operation in the Republic. The principal towns of the Republic are connected by numerous telegraph lines. A great many national lines were repaired during the year, and if the recommendations of the Secretary of Public Works are carried out the whole system will be repaired and reconstructed as soon as possible. The number of miles of telegraph lines in the Republic is estimated at 124. There are adequate cable connections with Cuba, the Dominican Republic, and South America.

A concession conveying the exclusive right for erection of wireless telegraph stations in the Republic was granted in 1908. The franchise was for fifty years from October 1 of that year and subject to renewal at the option of the contracting parties.

EDUCATION.

According to the report of the Secretary of Public Instruction, the progress made in this important branch of the administration has been slow but sure, the examinations established for obtaining of certificates and diplomas having greatly raised the standard of education and measures having been taken to improve the conditions of the schools. Corporal punishment has been abolished and needed changes effected in the teaching personnel.

The National School of Medicine and Pharmacy is developing satisfactorily, although the number of students has somewhat diminished, owing to the strict application of the law of September 16, 1906, which prevents any but those students holding certificates for secondary classical instruction from following the medical course. Congress voted an appropriation of \$500 for the library and a similar appropriation has been asked for the purchase of instruments.

The National School of Law responds to the expectations of the country, as does also the School of Applied Sciences.

Secondary classical instruction has developed considerably, great progress having been realized, especially in the school of Port au Prince, where a course in manual training has been added, so that now almost all the manual industries—carpentry, hat and boot making, saddlery, etc.—can be taught. Primary instruction does not show the same progress noted in the other educational branches, and there is yet much to be accomplished in this direction.

In 1908 there were 864 schools in the Republic.

GENERAL INFORMATION.

An important innovation, and one which it is hoped will have a decided bearing on the agricultural development of the country, is the establishment in the Agricultural Department of a technical service composed of three scientific agriculturists.

In his report covering the affairs of his department the Minister of Agriculture calls attention to the necessity of distributing seeds and selected plants among the farmers of the country, and in this connection states his intention of establishing a botanical garden for the study of the flora of the country. The Secretary is also organizing an agricultural statistical division which it is expected will in time be of great value. There are two practical agricultural schools in the country established by private enterprise—one at Bayeux in the north and the experimental tobacco plantation of Diquini in the west which are giving satisfactory results.

That the country realizes the important necessity of fostering its agricultural resources is evidenced by the numerous bills which are presented at each session of Congress with this end in view. One bill which was presented at the last session of Congress provided for an appropriation of \$5,040 to defray the expenses of seven agricultural students to be sent to the agricultural schools of the United States, Brazil, Canada, Japan, and other countries, the agricultural schools of Europe being excepted.

Article 7 of the law relating to the practice of medicine by foreigners in Haiti prescribes that no foreigner shall practice medicine in the Republic without first having been granted a license issued by the President of Haiti. Before this license is issued the medical jury at Port au Prince passes upon the diplomas of the foreign doctors, dentists, opticians, and pharmacists soliciting a license to practice their professions in Haiti, and reports on the validity of the diplomas and the fitness of the candidates. The Government then grants or refuses the license, basing its action upon the reports of the medical jury.

A chief of bureau in the Agricultural Department states that in the distilling of the orange flower Haitians have at hand all the elements of a lucrative industry and at practically little expense, for orange trees abound in the Republic, and distilled orange flower water, technically known as "hydrolat," and neroli oil find a ready market not only in the country but abroad as well. The oil obtained from the flower, and which is called "neroli oil," is much stronger than hydrolat, and commands twenty times the price, 20 drops, or scarcely a gram, bringing sometimes as high as \$1.50. This oil enters into the composition of various products, especially perfumery. It plays an important rôle in the preparation of eau de cologne and numerous other toilet waters.

The President, who is heartily in sympathy with railway construction, is encouraging all such projects in every way possible, consistent with the best interests of the nation, and has assisted in a most efficient manner in the initiation and successful termination of these undertakings.

The possibilities of Haiti are just beginning to be realized by the outside world. Foreign capital is being attracted to the country, and investments are being made therein on a scale which gives great promise of an era of exceptional activity in the development of the natural resources of the Republic. Port au Prince, the capital, is nearer New York by water than is New Orleans, and when the Panama Canal is opened to traffic and exploitation, Port au Prince will be in direct and easy water communication with the entire world.

It is impossible to estimate the natural resources and productiveness of the fauna, flora, and mineral wealth of the Republic with any degree of accuracy, but it is well known that the country abounds in valuable woods, such as mahogany and *lignum-vitæ*, out of which fine furniture and bowling balls are made. The precious metals exist in different parts of the country, but the mining resources have not been developed, and the field is as yet practically virgin. Coffee of a fine quality and good yield grows on the plantations of Haiti, nearly all of this excellent product being at present shipped to France, since better prices can be obtained there for it than can be secured in the United States.

One of the crying needs of the Republic is better transportation facilities, and the construction of railroads and highways will fill a long-felt want, and will tend greatly to the development and material progress of the country. The people of Haiti, who are exceedingly hospitable, courteous, and friendly, welcome undertakings of this character and are ready and willing to cooperate in legitimate transportation enterprises, knowing as they do that the development and progress of the Republic is largely dependent on the excellency of its railroads and public highways.

Under a law passed March 15, 1909, an appropriation of \$200,000 American gold was granted the Agricultural Department for various irrigation works. The plans include the building of a dam at the place called "Bassin General," and the reestablishment of the works and canals recognized as necessary for the diversion of the Gray River (*Rivière Grise*) and for the irrigation of the Cul de Sac plain. This plain is, from an agricultural point of view, one of the richest regions of the Department of the West, but often suffers from droughts. This work has now been completed.

The stipulated sum of \$200,000 will be guaranteed by an export tax on coffee and will be payable in five installments, i. e., upon the opening of the construction sheds, during the work, and after its

complete execution. In the thirty days following the signing of the contract the concessionaire must deposit a guaranty of \$5,000 American gold in the National Bank of Haiti. A period of two years is granted for the execution of the work.

The law provides for the free importation of the material, machinery, etc., necessary for the enterprise, and stipulates that the personnel, including the engineers and laborers employed in any capacity whatsoever, must be Haitian subjects.

A stock company was incorporated early in the year to be known under the name of "La Compagnie Hatienne de Wharf de Port au Prince" (Haitian Port au Prince Wharf Company). This company is organized for the purpose of building and maintaining a wharf at Port au Prince under the terms of article 11 of the concession granted by the Haitian Government September 4, 1906, sanctioned and approved by a special law voted by the legislative body September 16, 1906, and promulgated by the President of the Republic October 1, of the same year. The company will be capitalized at \$600,000, divided into 6,000 shares of \$100 each. The private property of the stockholders can in no wise be assessed for the debts of the company. This work is well under way and it is expected will be completed by November, 1910.

The Haitian Chamber of Commerce, established February 6, 1906, and declared to be of public utility by a presidential decree of November 30, 1907, is becoming of real value and is destined to render great service to agriculture, industry, and navigation. It intends to establish a permanent exposition of the products of the soil and industries of the country in order that they may become better known.

An important event of the year was the sanction by the Haitian Congress on July 23, 1909, of the arbitration convention concluded between the United States and Haiti and signed January 7, 1909, by Mr. ELIHU ROOT, then Secretary of State, and Mr. J. N. LÉGER, at that time Haitian Minister in Washington. The convention was approved by the Haitian Congress on July 23, 1909, and the decree approving the same signed by President SIMON on August 18, 1909. Ratifications were exchanged in Washington on November 15, 1909, between Hon. PHILANDER C. KNOX, Secretary of State, on behalf of the United States, and Mr. H. PAULEUS SANNON, Minister Plenipotentiary and Envoy Extraordinary for Haiti, on behalf of Haiti.



HONDURAS

GEOGRAPHICAL SKETCH.

Honduras, the third largest of the Central American Republics, lies between the Caribbean Sea and the Gulf of Honduras, the Republic of Nicaragua, the Pacific Ocean (Gulf of Fonseca), and the Republics of Salvador and Guatemala, extending from longitude $83^{\circ} 20'$ to $89^{\circ} 30'$ west, and from latitude $13^{\circ} 10'$ north to 16° north, with a seacoast of more than 400 miles. It has an area of 46,250 square miles, equal to that of Pennsylvania and Rhode Island, with a population estimated at 745,000, or 16.1 per square mile.

The territory of Honduras is mountainous throughout, and resembles that of Costa Rica, with a similar diversity of climate, soil, and products. Its large and fertile plateaux and valleys, among them the plain of Comayagua, 40 miles in length, produce nearly all the tropical fruits and offer excellent pasturage for numerous herds of cattle. The forests contain several varieties of cabinet and other woods, of which mahogany is the most important. Bananas are an important article of export, coffee, cacao, cocoanuts, india rubber, indigo, precious metals, and other mineral products being also shipped. Honduras is the country of the sarsaparilla, the product of the *smilax medica*, of which considerable quantities are annually exported to the United States.

HISTORICAL SKETCH.

When COLUMBUS, on his fourth and last voyage, discovered on August 14, 1502, what is now known as "Cape Honduras," he founded the town of Trujillo, on the bay of the same name. Several years later the country was explored by PEDRO DE ALVARADO and CRISTOBAL DE OLID, two of CORTÉZ' lieutenants, who were successful in subduing the native Indians, the warlike Caribs and Sambos, but it was not until CORTÉZ himself, in the year 1524, after having conquered Mexico, came to Honduras, that the country was finally brought under Spanish rule. It was subsequently made a part of the captain-generalcy of Guatemala, comprising all of the territory formerly under the control of the Quiché Kingdom of Guatemala.

Honduras, together with the other Spanish countries of South and Central America and the West Indies, suffered numerous attacks from the French, British, and Dutch buccaneers during the sixteenth and seventeenth centuries. The famous pirate, FRANÇOIS L'OLONNOIS, for a time in the year 1660 held possession of the country.

In the eighteenth century the Sambos, or Misskiti, Indians, retired to what is now known as the "Mosquito Coast," and having, with the aid of British settlers, defeated the Spanish forces, they applied to Great Britain for protection. This was granted, and in the year 1740 British forces occupied the Mosquito coast. By agreement with Spain in 1786 there was a readjustment of British territory to include parts of Yucatan and Honduras, now known as "British Honduras," or Belize.

The great wave of emancipation which swept over the American continent early in the nineteenth century found its echo in Central America. On September 15, 1821, the independence of the States comprising the Kingdom of Guatemala was declared in Guatemala City. This revolution was accomplished without bloodshed, owing to the fact that the Governor-General, GABINO GAINZA, supported the movement.

The history of Honduras is closely interwoven with that of the other Central American States from this date on, it being with them part of the Mexican Empire during the year 1822; subsequently, upon the downfall of the Empire of Iturbide, it became one of the States of the Central American Federation.

Honduras, as early as July 1, 1824, adopted an independent constitution, which, however, recognized the federation.

On October 28, 1838, Honduras finally declared its secession and absolute independence from the other States. Three *consejeros*, FELIPE MEDINA, JOSÉ ALVARADO, and LINO MATUTE, exercised the executive authority for a time, until in the year 1839 JOSÉ M. BUS-
TILLO was appointed President *ad interim* and FRANCISCO FERRARA elected President. On January 1, 1841, he was inaugurated as the first constitutional President of Honduras.

The present Executive, Gen. MIGUEL R. DÁVILA, assumed provisional charge of the presidency April 18, 1907, and became President early in the following year.

CONSTITUTION AND GOVERNMENT.

When Honduras seceded from the Central American Federation, it adopted the unitary, republican form of government, the Constitution expressly providing, however, that the said instrument shall by no means bar the Republic from again becoming a State of the Federation and that the Constitution may at any time, for that purpose be abolished or amended by Congress.

The usual division of the Government into legislative, executive, and judicial branches is retained; the first named being composed of one chamber only of 42 members, elected by direct vote for a term of four years.

The President and Vice-President are also elected by direct vote for a term of four years and may not be reelected for the next consecutive term. All citizens over 21 years of age, or over 18 years of age if married, and who can read and write are entitled to vote, suffrage being not only universal but compulsory.

A cabinet of 6 Ministers, or Secretaries, appointed by the President, but responsible to both the President and Congress, assists in the administration of the Government. They are at the head of the following departments: Foreign Affairs; Government, Justice and Fomento; Public Instruction and Agriculture; War; Treasury and Public Credit.

The President is allowed a salary of 24,000 pesos per annum, equivalent to \$9,600 gold.

The Supreme Court is the highest tribunal of justice in the country. It is composed of 5 justices, who meet in the capital, Tegucigalpa, and are elected by popular vote for a period of four years. A number of minor justices are appointed by the Supreme Court. Justices of the peace are elected by popular vote.

INTERIOR GOVERNMENT.

The Republic of Honduras is politically divided into sixteen Departments and one Territory, which are again divided into districts. The administration of each Department is in the hands of a Governor appointed by the President. Municipal councils are elected by direct vote of the people.

The Departments and their respective capitals are:

Department of—	Capital.
Tegucigalpa.....	Tegucigalpa. ^a
Comayagua.....	Comayagua.
Cortes.....	San Pedro Sula.
Santa Barbara.....	Santa Barbara.
Copan.....	Santa Rosa.
Gracias.....	Gracias.
Intibuca.....	La Esperanza.
La Paz.....	La Paz.
Valle.....	Nacaome.
Choluteca.....	Choluteca.
El Paraíso.....	Yuscaran.
Olancho.....	Juticalpa.
Colon.....	Trujillo.
Yoro.....	Yoro.
Atlantida.....	La Ceiba.
Islas de la Bahia.....	Roatan.

The Territory of Mosquitia, although the second largest geographical division, is but sparsely inhabited and but little explored, being

^a Also capital of the Republic.

covered with dense, impenetrable forests. The largest Department is that of Olancho, with about 12,000 square miles.

The principal cities, with population, are: Tegucigalpa, 35,000; Juticalpa, 17,800; Nacaome, 12,000. The main ports are: Amapala on the Pacific, and, on the Atlantic, Puerto Cortez, Omoa, Ulua, La Ceiba, Trujillo, Roatan, and Utila.

ARMY AND NAVY.

The standing army of Honduras numbers about 2,000 officers and men. The reserve army, which is composed of all able-bodied citizens registered for military service, is estimated at about 50,000. Military service is compulsory and every male citizen of Honduras may be called upon to serve in the regular army from his twenty-first to his thirty-fifth year and in the reserve from his thirty-fifth to his fortieth year.

A report of the Minister of War of the Republic of Honduras gives the total number of privates in the whole army at the close of 1909 as 45,576, the number of principal officers, 955, and the number of subordinate officers, 2,900.

Honduras has two small vessels which serve as revenue cutters and war vessels. One is used on each coast for the purpose of patrol duty and the work incidental to the public service. The *Febrero 22* is of 12 tons burden and the *Tatumbula* of 108 tons. They carry a small armament of Hotchkiss guns.

HONDURAS IN 1909.

General conditions for the year again showed a progressive movement. The administration of President DÁVILA devoted a great deal of serious attention to the discussion of means of transportation and persisted in the negotiations for the readjustment of its foreign financial relations.

The debt of the nation is still unsettled, but there is every prospect that it will soon be completely reorganized, so that foreign capital will feel more encouraged to make the substantial investments in the country which are so much needed to open rich and naturally productive areas to both development and immigration. The internal debt remained practically unchanged.

In the matter of foreign commerce the amount exported exceeded to a favorable degree that of the previous year, but Honduras is one of the few Republics in which the balance of trade is against it. Nevertheless, this apparently unfavorable showing is offset by the fact that the amount of imports for the year shows a decrease as compared with that of the preceding twelve months.

Agriculture remains the leading industry of the country and leads in the export trade, although Honduras is known to be very rich in

minerals. Bananas head the list of agricultural products, followed by tobacco, coffee, and sugar. The banana crop, in spite of unfortunately frequent losses by hurricane and flood, was better than the preceding year. Corn, which occupies the first place among the agricultural products, although it figures very little among exports, yielded a larger crop than in 1908 and met the wants of the native population. Unfortunately the system of cultivation is still in a primitive condition, but if modern methods were once introduced and the people aroused to the value of their land for this grain Honduras might become one of the great corn-producing Republics of Latin America.

There was only a slight addition to the railway mileage of the country, but the concessionaires of the newer projected lines were ready to begin work at the end of the year.

FINANCE.

In a report presented to the Chamber of Deputies of the National Congress by the Minister of Finance in January, 1910, it is stated that the revenues for the year ending August 1, 1909, were, gross, 3,848,446 pesos silver. From this sum is deducted 439,872 pesos, giving a net revenue of 3,408,574 pesos.

The principal source of revenue was from customs duties, 2,379,926 pesos. The banana export tax yielded 94,952 pesos. Ordinary expenditures amounted to 3,822,234 pesos, to which amount is added expenditures on account of the public debt, 409,048 pesos, and expenditures on special accounts, 4,317,106 pesos, making a total of 8,548,388 pesos. The special accounts are not itemized or further explained.

On the 1st of August, 1908, the internal debt of Honduras amounted to 4,015,258 pesos. During the year 1908-9 this was increased 413,042 pesos, less 409,048 pesos. This last sum represents payments made on account of the debt. The net increase was therefore 3,995 pesos, making the total internal debt on August 1, 1909, 4,019,253 pesos. The principal item of ordinary expenditures was 1,495,829 pesos, on account of the Department of War.

The external debt of Honduras, of which a considerable portion is in dispute, amounts to about £22,500,000. Of this sum over £17,000,000 represents interest.

COMMERCE.

The total foreign trade of Honduras for the fiscal year ending August 1, 1909, was 12,116,209 pesos, silver.

Estimating the average gold premium for the year at 165 per cent, i. e., \$1 gold equivalent to \$2.65 silver, this would amount to \$4,572,154 United States gold. Of this amount, imports were 6,841,115 pesos, equivalent to \$2,581,553 gold, and represents a

decrease from the year preceding of 233,970 pesos. The exports were 5,275,094 pesos, equivalent to \$1,990,601. This is an increase over the preceding year of 689,937 pesos. In all, there is an increase of the foreign trade amounting to 455,967 pesos, or \$172,063.

The balance of the trade against the Republic amounted to 1,566,021 pesos, equivalent to \$590,943.

By countries of origin the imports were:

United States.....	\$1, 769, 876. 60
England.....	245, 258. 31
Germany.....	233, 514. 62
France.....	114, 891. 48
British Honduras.....	103, 251. 27
Nicaragua.....	37, 936. 14
Spain.....	30, 781. 34
Italy.....	13, 565. 64
Salvador.....	11, 454. 79
Belgium.....	6, 981. 09
Cuba and the Islands.....	4, 887. 00
Mexico.....	3, 249. 76
China.....	2, 707. 55
Guatemala.....	1, 753. 68
Japan.....	562. 81
Ecuador.....	245. 29
Austria-Hungary.....	176. 75
Switzerland.....	124. 00
Panama.....	120. 00
Denmark.....	95. 25
Costa Rica.....	75. 47
Holland.....	24. 00
Norway.....	20. 00
Total.....	2, 581, 552. 84

The import trade of British Honduras, which is fifth in order on the list above, is in reality a transit trade, and represents to a large extent English production, although in part United States, French, and German.

According to the United States statistics for the fiscal year ending June 30, 1909, the principal exports to Honduras were:

Breadstuffs.....	\$164, 097
Cotton manufactures.....	374, 173
Iron and steel manufactures.....	222, 127
Leather manufactures.....	64, 300
Meat and dairy products.....	106, 508

The values of exports from Honduras by countries, in United States gold, were:

United States.....	\$1, 834, 565. 47
Germany.....	71, 792. 69
British Honduras.....	35, 188. 15
Salvador.....	15, 879. 15

• HONDURAS •

TRADE FOR THE FISCAL YEAR ENDING AUGUST 1, 1909.

UNITED STATES	\$1,769,876
ENGLAND	245,258
GERMANY	233,514
FRANCE	114,891
BRITISH HONDURAS	103,251
NICARAGUA	37,936
SPAIN	30,781
ITALY	13,565
SALVADOR	11,454

IMPORTS
BY
PRINCIPAL COUNTRIES OF ORIGIN

UNITED STATES	\$1,834,565
GERMANY	71,792
BRITISH HONDURAS	35,188
SALVADOR	15,879
GUATEMALA	13,245
ENGLAND	12,190
NICARAGUA	4,066
SPAIN	1,981
FRANCE	1,427
COLOMBIA	264

EXPORTS
BY COUNTRIES OF PROCEDURE



BANANAS	\$ 908,643
CYANIDE	536,544
COCOANUTS	113,139
SILVER	100,668
COFFEE	57,920
HIDES	52,638
CATTLE	47,601

PRINCIPAL
ARTICLES EXPORTED

Guatemala.....	\$13,245.66
England.....	12,190.53
Nicaragua.....	4,066.42
Spain.....	1,981.36
France.....	1,427.66
Colombia.....	264.15
Total.....	1,990,601.24

As compared with the preceding year, there was an increase in the exports to the United States, British Honduras, Guatemala, France, and Nicaragua and a decrease in the exports to Germany, Salvador, and England. Spain and Colombia do not appear in the list for 1907-8.

The exports are classified under five general heads, as follows:

Mineral products.....	\$662,957
Vegetable products.....	1,203,905
Animal products.....	116,236
Manufactures.....	6,158
Miscellaneous.....	1,345
Total.....	1,990,601

The principal mineral products were quicksilver, cyanide, gold, and silver. The principal vegetable products were bananas, cocoanuts, coffee, rubber, mahogany, cedar, and ebony. The principal animal products were cattle and hides. The following table represents some of the principal exports:

Export.	Quantity.	Value.
Mercury.....pounds..	10,325	<i>Pesos silver.</i> 40,000
Silver.....		267,023
Gold.....		13,425
Cyanide.....pounds..	109,314	1,423,193
Rubber.....do.....	81,696	93,746
Cocoanuts.....number..	8,035,262	300,104
Coffee.....pounds..	653,053	153,635
Bananas.....bunches..	4,630,241	2,410,193
Mahogany.....feet..	1,593,318	88,852
Cedar.....do.....	246,195	23,812
Ebony.....do.....	368,311	35,072
Cattle.....head..	3,804	126,263
Cattle hides.....pounds..	511,861	139,623
Deerskins.....do.....	82,710	38,127

INDUSTRIES.

The agricultural possibilities of the country are extensive. Cacao, cotton, sugar cane, coffee, tobacco, and other tropical and subtropical products can be grown in immense quantities and of the finest quality, while the forests supply abundant timber, pitch pine, and dyewoods, and the uplands furnish excellent pasture. On the lowlands on the Atlantic side banana culture is increasing, and in the more temperate climate offered by the tablelands in the interior, cereals, fruits, and vegetables of the more northern latitudes can be grown readily.

Maize takes first rank both as to value of the annual crop and importance in the diet of the people, in which it figures largely on account of the comparatively small quantity of wheat produced in the Republic. The harvest for 1909 yielded 478,395 bushels.

The growing of bananas for export is the second industry of importance in Honduras. The enormous increase in recent years in the consumption of bananas and the fortunes made by successful growers make this a subject of wide interest. The exports of this fruit from Central America have trebled during the last ten years and constitute about 80 per cent of all the bananas imported into the United States.

Banana growing ranks second in importance among the leading industries. It is estimated that the production of the Atlantic coast district alone produced 9,000,000 bunches of this fruit in 1909, of which the majority were exported.

The banana in Honduras grows wild in practically all parts of the country up to an elevation of 3,000 feet or more, but the industry of cultivating this fruit for export is confined to the rich, hot lands along the north coast and not extending farther inland at any point than 50 or 75 miles. Puerto Cortez, Ceiba, and Trujillo are the shipping points. The shipments from Puerto Cortez during the last four years were as follows: 1906, 2,708,000 bunches; 1907, 2,000,000 bunches; 1908, 2,020,000 bunches; 1909, 1,682,000 bunches.

Coffee is grown chiefly in the hill country at altitudes of from 1,500 to 3,000 feet. The coffee crop for the fiscal year 1909 amounted to 5,500,000 pounds, valued at 1,105,200 pesos.

The value of the products of sugar cane amounted in 1909 to \$455,605. There is every reason to believe that with better means of communication and transportation facilities, Honduras, like Cuba, could become a great producer of sugar. Conditions of soil are ideal for the establishment of great sugar plantations, and by damming the mountain streams cheap power could be obtained to run the refineries.

Of great importance to Honduras is the recent attempt on the part of the Government to introduce proper methods in the cultivation of tobacco. The experiments which have been carried on are sufficient to prove the suitableness of soil and climate and the great possibilities in store for Honduras as a tobacco country.

The Government is disposed to make contracts for the exploitation of turpentine in its pine forests, as well as for the sale, in whole or in part, of the timber referred to. With this object in view, the Ministers of Fomento and Agriculture, at Tegucigalpa, will receive and consider all proposals tendered and will likewise give such information as may be requested concerning the matter.

There is no country more suitably situated for raising cattle than is Honduras. During 1904, the latest year for which complete figures are obtainable, 46,934 cattle were slaughtered for home consumption and 39,736 head were exported. During the fiscal year 1906-7 cattle to the value of \$133,735 were exported; during 1907-8, \$65,038 represented the export values. During the same two years the value of hides exported was \$66,313 and \$72,569, respectively.

It is a well-known fact that gold, platinum, silver, copper, iron, lead, zinc, tin, quicksilver, and more or less coal of varying quality occur in Honduras, and that they have never been adequately exploited. Gold is found in either quartz veins or alluvial deposits. The most important gold mines are on the south coast of the country, several good prospects being only a few miles from the sea.

Silver ores are found in all the departments, and are the most numerous and productive mines, occurring in quartz veins carrying sulphides, galena, and zinc-blende, with some gold values; in blanket veins carrying free silver with small quantities of sulphides, but with no gold values; and in lead-zinc veins, mostly blanket with some sulphides and no gold values. There are also deposits of antimony and lead carbonates carrying silver in the ratio of 20 to 40 ounces to the ton, with no gold values.

Deposits of iron ore have been worked to a very limited extent, although the existence is reported of an extensive area of magnetite of fine quality. The iron found in the Republic is said to be highly magnetic. It is found in great quantities in the mountains of Algalteca. The natives of the neighboring towns manufacture axes and machetes from the metal obtained from these deposits, using their forges and anvils. It is said that the ores from this mountain yield 65 per cent of high-grade iron.

Copper, especially, is quite widely distributed throughout the Republic, the ores containing an extremely high percentage of fine copper, estimated at from 65 to 75 per cent per ton. The copper of the mines of Guanacostre, in the Department of Olancho, are reported to run a high percentage of both copper and silver. A recent discovery of copper in the Department of Yoro has been reported, in which the veins are said to be 10, 12, and 14 feet in width. An estimate has been made that the entire body has a high proportion of pure copper.

All of the lead ores are worked for their silver content, and though platinum finds have been reported, the pure metal has not been discovered. Antimony and lead carbonates are found in some of the departments, but owing to the difficulty in extracting the silver values little attention has been paid to them. Record of a rich cinnabar vein in the Department of Comayagua was made during the Spanish occupation, but no further exploitation has been carried out. A

large vein of bismuth has been exposed in the Department of Tegucigalpa. No coal mining has been done, and the application of modern methods to the mining industry of the country is as yet very limited.

Besides the ores of the regular mines, immense quantities of ore sand have been found in the beds of such rivers as the Panal, Rosario, Almendares, España, and certain others which water the Department of Olancho. The methods used in treating the ores are most primitive, the washing being done with a sieve. But in spite of the primitive methods, the results are very satisfactory, since the women who are engaged in this industry obtain from 150,000 pesos to 250,000 pesos annually for their product. It is impossible to give an accurate estimate of the amount of free gold existing among the sands and rocks of the famous mineral zones of Olancho, Yoro, and Tegucigalpa.

An examination of the records show that some 700 mines in all have been denounced. While the country is undoubtedly richest in silver, denouncements have also been made of gold, lead, copper, kaolin, crystal, iron, opals, marble, saltpeter, aluminum, chalk, coal, antimony, zinc, nickel, and asphalt. Petroleum is also found, and an exclusive privilege to extract and export it has been granted.

The denouncement of a mining claim may be made by any individual to a zone to the extent of 1,000 hectares, which, six months afterwards, is measured and taxes paid upon it for the first year amounting to 50 cents silver per hectare. Free entry through the customs is granted for all needful equipment, freight destined for the mines being introduced by way of Amapala.

As yet the mineral and agricultural resources of the Republic have not been adequately developed, due to lack of proper means of communication.

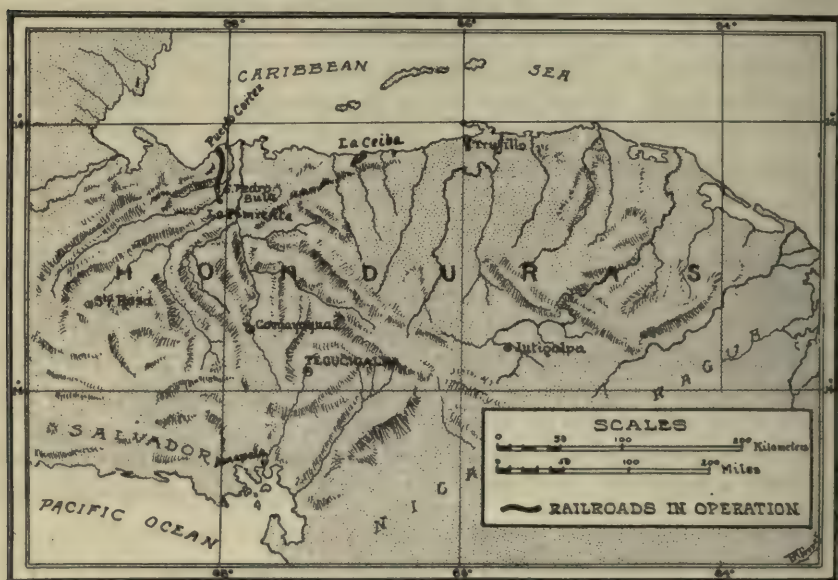
RAILWAYS AND INTERIOR WATERWAYS.

There are in the Republic about 100 miles of railway, the National Railway, a regular public service corporation, from Puerto Cortez to Pimienta, 56 miles, being the most important. The Vaccaro system, in the banana territory, at Ceiba, extends for 32 miles. The remainder are short banana roads or the beginnings of lines projected into the interior.

During the administration of President DAVILA the Government devoted much attention to the transportation question, which involved the settlement of the foreign debt, the extension of the transcontinental railroad toward the Pacific side, and the building of some 71 miles of new road across the Republic to constitute the Honduras link in the Pan-American road.

Various concessions were granted during 1909 for the navigation of rivers, and contracts let for the construction of railway lines on

the Atlantic coast, the most important of which was the contract for the building of a railway from Trujillo Bay to Juticalpa, with a branch line to Tegucigalpa. The enterprise has been incorporated into a stock company with a capital of \$10,000,000. The road, when completed, will be about 350 miles in length, of standard gauge, modern equipment, and rolling stock of United States manufacture. It will include, in addition to the main route, branches to many interior cities, thus giving communication and transportation facilities to a practically virgin territory. The section to be penetrated is reported rich in gold, silver, and other minerals, and hardwoods. The harbor facilities at Trujillo, the terminal of the line, provide ample accommodation for the increased traffic to result from the line.



MAP SHOWING THE RAILROAD LINES OF HONDURAS.

Other railway contracts recently approved by the Government are the following: A standard-gauge line, 80 kilometers in length, in the Department of Atlantida, from Puerto Sal or Tela to the shores of the Comayagua River, and a line in the Department of Cortes from the Bay of Omoa for a distance of about 70 kilometers to a point on the River Cuyamel and along the Chamelecon Valley. On these construction work has been undertaken.

The construction of a railroad from the port of Armenia, located several miles to the east of Ceiba, and projected to tap the heart of the mahogany district, was commenced in the latter part of 1909. The road will approximate 18 miles in length and pass for 10 miles through banana lands now producing.

Of the numerous rivers of Honduras, the Chamelecon, Ulua, Lean, Aguan, Tinto, Patuca, Wanks or Segovia, Choluteca, Nacaome, and Goascoran are the most important, being more or less navigable, and some of them forming important means of communication and transportation. The Government of Honduras is giving considerable attention to the development of these natural transportation routes and has granted various concessions for the building of railway lines connecting points along the rivers.

A regular line of steamers plies on the Ulua River for a distance of 125 miles from its mouth to Progreso, owned and operated by the Monte Vista Steamboat Company. The Aguan Negro, Patuco, and Segovia are navigated by vessels of light draft for short distances.

The principal lake of Honduras is the Yojoa, which is 25 miles in length by 6 miles wide and is navigable for steamers. It communicates with the Ulua River by means of its tributary, the River Blanco, thus giving water communication between the coast and the interior, the mouth of the Ulua River being not far from Honduras's principal port, Puerto Cortez. By a decree of May 12, 1908, the exclusive right of navigation on the lake was granted to an American.

The Government of Honduras has authorized the construction of a canal to connect the Aguan River with Trujillo Bay and to open up water communication to Olanchito, Department of Yoro, for the transportation of freight and passengers. The canal will be 40 feet wide and 6 feet deep.

The Government is devoting particular attention to the construction of wagon roads and bridges and to the upkeep of those already established, while it has at different times financially assisted the different municipalities in the construction of roads within their own limits.

There being no railways in the interior of Honduras, its public highways are of greatest importance. During 1909 work was begun on five new roads, as follows: The road of Olancho, to develop agriculture in the valleys of Cedro and Talanga; the road of Yojoa, leading from La Pimienta to the Department of Comayagua; the road of Chamelecon, leading to Santa Barbara and Copan; the road of Ocotepeque, connecting that city with Citala in Salvador; and the road from Gracias to Santa Rosa.

MEANS OF APPROACH.

With a coast line of over 400 miles on the Atlantic seaboard, Honduras affords ample opportunities for commerce and navigation, while on the Pacific coast the Gulf or Bay of Fonseca gives access to large ocean-going vessels. The principal port of Honduras on the Atlantic side is Puerto Cortes, one of the finest harbors on the Carib-

bean Sea, others being Ceiba, Trujillo, Omoa, and Roatan, while on the Pacific side the largest is Amapala, on Tigre Island.

The United Fruit Company's steamers leave New Orleans for Puerto Cortes every week, making the run in five days; the Hubbard-Zemurray Steamship Company has regular weekly sailings from Mobile, Alabama, for the same port, and the Central American Steamship Company from both of these ports. The United Fruit Company has also a line of steamers plying between Mobile and Ceiba, sailing from the former port once a week. There is, besides, a fruit line between Cortes and Tampa, Florida.

The Pacific ports may be reached either via San Francisco or Panama, the Pacific Mail Steamship Company's steamers calling regularly at Amapala, as do also the Kosmos Line and Jebsen Line steamers, making the run from San Francisco in from twenty to twenty-two days.

From the town of San Miguel, in Salvador, there is a traveled route to Tegucigalpa, but there is no established path into either Guatemala or Nicaragua.

POSTS AND TELEGRAPHS.

The postal service has had the benefit of many improvements during the year, and enough new offices have been established to bring the total up to 256. Notwithstanding some natural obstacles to communications, the service has been steadily improved during the last few years and a high degree of efficiency has been reached in the handling and distribution of mails.

Honduras has a parcels-post convention with the United States. The rate on parcels is 12 cents per pound or fraction thereof. The packages received by parcels post in 1909 aggregated in number 5,870.

The parcels-post convention between Honduras and Belgium, concluded in Guatemala on January 1, 1909, between the representatives of the two Governments, approved by the National Congress on April 2, 1909, and ratified by the President the 10th of the same month, became effective on December 17, 1909, and will continue in force until one year after either country shall have notified the other of its intention to terminate it.

There are about 3,600 miles of telegraph lines in the Republic and 217 offices. The number of messages transmitted over these lines in 1909 reached a total of 886,697. The telephone companies operate 100 miles of line and 95 stations in the capital and other towns.

On December 19, 1908, the President of the Republic approved a contract for the erection of a wireless station in the neighborhood of Tegucigalpa and for various substations at convenient points along the coast.

EDUCATION.

The courses of instruction in the government public schools are free and entirely nonsectarian. The courses are divided into elementary, high or superior, normal, and professional.

Elementary or primary instruction is compulsory and is in charge of the municipal authorities but subsidized by the Government.

The Government is encouraging the spread of education, and to this end it recommends better salaries for teachers. A law school, a school of commerce, a national institute, and normal schools for both sexes are maintained, and the primary schools in 1909 numbered 655, with a corps of 767 teachers and 25,975 matriculates. Large sums of money have been spent by the administration for public instruction, mainly in the form of salaries to primary school-teachers. The Government intends to reestablish the school of medicine, putting it upon a firm financial basis, in order that it may recover as soon as possible the prestige which it formerly enjoyed.

The Republic expends about 25,000 pesos yearly in sending scholars to the United States, Mexico, and Europe for the purpose of gaining the knowledge incident to various professions of practical utility.

In accordance with the agreement at the Washington conference, Honduras subscribed 100,000 pesos toward the establishment of the Pedagogical Institute of Central America in Costa Rica.

GENERAL INFORMATION.

A twenty-year concession has been granted to a company for the erection of an electric-light plant at Baracoa of Puerto Cortez, to be known as "The Puerto Cortez and Baracoa Electric Company." The company will furnish electric light to the neighboring towns and power to tramways, railways, and industrial enterprises. Permission is given for the construction of telegraph and telephone lines.

Another electric-light concession has been granted for a period of twenty years for the installation of an electric-light plant in the city of San Pedro Sula. This company will operate under the name of "Empresa de Luz Electrica de San Pedro Sula" and will supply light and power for the same purpose as the electric company first mentioned.

In so far as possible the general government has aided the municipalities in the furthering of public works, such as the construction of roads, streets, school buildings, and parks. Among the more important undertakings of this kind is the construction of a highway between Tegucigalpa and the Department of Olancho in order to make available to commerce the rich products of that district.

The Government has recently entered into a contract for the construction and maintenance of two light-houses, one on the island of

Utila, lying off the northeastern coast, and one on Cape Falso, near the extreme eastern coast. The lights are to be of the automatic acetylene-gas, beacon type. The towers are to be not less than 100 feet in height.

The law requiring the coastwise trade of the Republic to be carried on in vessels owned and registered in the Republic has been repealed, and this trade thrown open to the nations of the world without any restriction whatever. Formerly vessels coming to Honduras from foreign countries were required to have ship's papers signed by a consular officer of Honduras. This decree has also been repealed, and the trade of the country is now open to the vessels of all countries.

The Government on July 30 approved the treaty of arbitration negotiated with Brazil by the representatives of the two countries in April, 1909.

Among the more important events of the year was the convention held by the First Central American Conference at Tegucigalpa, in January.

The annual message of the President congratulated Congress on the settlement of the question between the Governments of Guatemala and Salvador, and praised the consular service for its efficiency.

The Government has denounced the commercial treaty of January 21, 1877, with Great Britain. The treaty will, therefore, expire in October, 1910.



MEXICO

GEOGRAPHICAL SKETCH.

The United Mexican States (*Estados Unidos Mexicanos*) form the third largest of the American Republics as regards population and fourth largest as regards territory, having an area of 767,000 square miles and a population of 13,607,260, or 17.7 per square mile. Situated between the United States of America, the Gulf of Mexico and the Caribbean Sea, British Honduras, the Republic of Guatemala, and the Pacific Ocean, Mexico extends from latitude $14^{\circ} 30' 42''$ to $32^{\circ} 42'$ north and from longitude $86^{\circ} 46' 8''$ to $117^{\circ} 7' 31''$ west of Greenwich.

Two mountain chains traverse the entire territory, forming between them a number of valleys and *mesas* or plateaux of various altitudes. That of Anahuac, on which is situated the capital of the Republic, is the largest and most important.

The varying altitudes as well as its situation, partly in the Tropical and partly in the Temperate Zone, give to Mexico a diversity of climate and products. Its mineral wealth in silver and gold, copper, and lead is proverbial. The extensive forests, both of the lowlands, the *tierras calientes*, and of the mountain country are among the most valuable assets of the country. These contain in abundance woods suitable for building, for cabinet making, dyewoods, and medicinal plants. The rubber-producing *castilloa* is also found in considerable quantity in the low coast lands. Chicle, used so extensively in the manufacture of chewing gum, is a Mexican product.

In addition to its mineral exports, henequen, coffee, tobacco, cacao, vanilla, and sugar are exported in large quantities. Cotton, which is largely grown, is consumed in the domestic mills which, in addition, import cotton from the United States.

HISTORICAL SKETCH.

Prior to the coming of HERNAN CORTES, the Mexican conqueror, Don DIEGO VELASQUEZ, Governor of Cuba, had in 1517 sent FRANCISCO HERNANDEZ DE CORDOVA and JUAN DE GRIJALVA to explore the Mexican coast. The reports received by the Governor were so favorable that CORTES was sent to make a conquest of the country. He landed first on April 12, 1519, on the little island of Ulua in the harbor of Veracruz. From this point, with the powerful aid of tribes hostile to the Aztecs, he gradually succeeded in conquering the country, and by force and treachery made himself master. The great Aztec Empire was destroyed by the invaders, its emperors MONTEZUMA II and the

heroic GUAHTEMOC perished, and the Indians were enslaved and forced to exploit the mines and other natural resources for the benefit of the conquerors.

HERNAN CORTES was appointed Governor of New Spain, as it was then called, in the year 1522, but was soon recalled and succeeded by another Governor, and in the year 1535 the viceroyalty of New Spain was created, including all of the Spanish possessions in North and Central America, DON ANTONIO DE MENDOZA being appointed viceroy.

New Spain was successively governed by 62 viceroys, the last being DON JUAN O'DONOJU, who withdrew in the year 1821.

A Mexican priest, DON MIGUEL HIDALGO Y COSTILLA, was the leader of the movement for independence. On September 16, 1810, he issued a declaration known as "*El grito de Dolores*," and subsequently succeeded in gaining several victories over the Royalists. He was finally defeated and executed on July 30, 1811. The patriotic cause was taken up by others, among them another priest, DON JOSÉ MARIA MORELOS, who was likewise executed on December 22, 1815. General ITURBIDE, who was to finally decide the struggle in favor of the patriots, entered the City of Mexico on September 27, 1821, at the head of the patriot army. Here was evolved what was known as "the plan of Iguala," whereby a King was to be elected for Mexico. To this plan the Viceroy O'DONOJU agreed.

In the meantime a congress of Mexican patriots at Chilpancingo, on November 6, 1813, had formally declared the independence of Mexico from Spain.

Under the plan of IGUALA, General ITURBIDE was elected Emperor of Mexico, and on July 21, 1822, was crowned at the City of Mexico, adopting the title of AGUSTIN I. The Empire was but short lived. Gen. ANTONIO LOPEZ DE SANTA ANA proclaimed the Republic on December 6, 1822, and the Emperor was forced to abdicate on March 19, 1823, and to leave the country. Upon his return, in the year following, he was sentenced to death and executed at Padilla on July 19, 1824.

Gen. GUADALUPE VICTORIA became the President of the Republic on October 10, 1824. In 1829 Spain sought once more to regain control of her former possession, and landing a strong force at Tampico, in July, 1829, marched to the capital. The Spaniards were, however, completely routed by the patriots on September 10 of the same year, and on December 28, 1836, Spain finally recognized the Republic.

In 1836 Texas seceded from the Mexican Union, and defeating the Mexican troops under SANTA ANA on April 21, 1836, established the Independent Republic of Texas, which in December, 1845, was admitted to the Union of the United States of America. This led to the war with the United States in April, 1846, which was finally settled by the treaty of Guadalupe of February 2, 1848, whereby

the United States of America acquired all the territory belonging to Mexico north and east of the Rio Grande for the sum of \$15,000,000.

The intervention of the European powers, France, England, and Spain, occurred in 1862, during President JUAREZ's term, and resulted in the establishment of the Mexican Empire by NAPOLEON III, who placed the Austrian Prince, MAXIMILIAN, upon the throne of Mexico. He was crowned on June 12, 1864, but being deserted by NAPOLEON he was finally defeated and executed at Queretaro, together with his generals, MIRAMON and MEJÍA, June 19, 1867.

DON BENITO JUAREZ then served as President till his death, July 18, 1872, and was succeeded by SEBASTIAN LERDO DE TEJADA, who, in 1877, was succeeded by President PORFIRIO DIAZ, now serving his seventh term as President of the United Mexican States. His term will expire November 30, 1910.

CONSTITUTION AND GOVERNMENT.

The Constitution of the Mexican Republic, adopted February 5, 1857, provides for a republican, representative, federal form of government, similar to that of the United States, the various States of the Union being free to regulate their internal affairs. The National Government is vested in the legislative, executive, and judicial branches.

The National Congress is composed of the Senate and Chamber of Deputies, the former consisting of 56 members, two for each State and the Federal District, elected indirectly for a term of four years, one-half of the Senate being renewed every two years. Deputies are elected in a like manner, but for a term of two years, at the rate of one deputy for every 40,000 inhabitants or fraction exceeding 20,000.

A permanent committee consisting of 15 Deputies and 14 Senators represents Congress during recess and is consulted by the President on all matters affecting legislation.

The President and Vice-President of the Republic are chosen by electors for a term of six years, the President being assisted by a Cabinet of 8 Ministers or Secretaries. This Cabinet consists of the following officials: Secretary of Foreign Affairs, Secretary of Government, Secretary of Justice, Secretary of Public Instruction, Secretary of Fomento, Colonization, and Industry, Secretary of Communication and Public Works, Secretary of the Treasury and Public Credit, Secretary of War and Marine.

The President receives a salary of 50,000 *pesos* annually, equal to \$25,000, while the Secretaries receive 15,000 *pesos* each.

A Supreme Court, 3 circuit courts, and 32 district courts comprise the national judiciary. The Supreme Court justices, 11 in number, are elected by indirect vote of the people for a term of six years and receive a salary of 10,000 *pesos* (\$5,000) each per annum.

INTERIOR GOVERNMENT.

Mexico is divided politically into 27 States, 3 Territories, and 1 Federal District. Governors of the States are elected in the same manner as the President of the Republic, as are also the legislatures and the judiciary of each State. The Territories are administered by a Governor appointed by the President of the Republic, while the Government of the District of Mexico (Federal District), is in the hands of three officials, likewise appointed by the President.

The States and Territories are subdivided into municipalities, which elect their own administrative councils and mayors.

The States and Territories and their respective capitals are the following:

	Capital.
Federal District.....	Mexico City.
State of—	
Aguascalientes.....	Aguascalientes.
Campeche.....	Campeche.
Chiapas.....	Tuxtla-Gutierrez.
Chihuahua.....	Chihuahua.
Coahuila.....	Saltillo.
Colima.....	Colima.
Durango.....	Durango.
Guanajuato.....	Guanajuato.
Guerrero.....	Chilpancingo.
Hidalgo.....	Pachuca.
Jalisco.....	Guadalajara.
Mexico.....	Toluca.
Michoacan.....	Morelia.
Morelos.....	Cuernavaca.
Nuevo Leon.....	Monterrey.
Oaxaca.....	Oaxaca.
Puebla.....	Puebla.
Queretaro.....	Queretaro.
San Luis Potosi.....	San Luis Potosi.
Sinaloa.....	Culiacan.
Sonora.....	Hermosillo.
Tabasco.....	San Juan Bautista.
Tamaulipas.....	Ciudad Victoria.
Tlaxcala.....	Tlaxcala.
Veracruz.....	Jalapa.
Yucatan.....	Merida.
Zacatecas.....	Zacatecas.
Territory of—	
Baja California.....	La Paz.
Tepic.....	Tepic.
Quintana Roo.....	Santa Cruz de Bravo.

The principal cities of the Republic, with their population, are: Mexico City, 400,000; Toluca, 30,000; Morelia, 38,600; Veracruz, 30,000; Orizaba, 33,000; Jalapa, 21,400; Puebla, 99,000; Oaxaca, 35,000; Tampico, 20,000; San Luis Potosi, 61,000; Merida, 43,000;

Monterey, 63,000; Saltillo, 25,000; Torreon, 25,000; Durango, 43,000; Chihuahua, 30,000; Zacatecas, 34,500; Aguascalientes, 40,000; Leon, 64,000; Guanajuato, 40,500; Queretaro, 38,000; Guadalajara, 105,000. The principal Pacific ports are Mazatlan, Manzanillo, Acapulco, Salina Cruz, San Benito, and Guaymas. Those on the Atlantic are Vera Cruz, Matamoros, Tampico, Puerto Mexico, Frontera, Campeche, Progreso, and Merida.

ARMY AND NAVY.

The permanent army of Mexico consists of 28 battalions of infantry, 14 regiments of cavalry, 8 field batteries, 4 mountain batteries, 4 batteries of horse artillery, 1 machine-gun company, 1 squadron of 16 quick-firing guns, 6 companies of engineers, and 2 transport companies. Enlistment in the service is voluntary, but is supplemented by conscription. The personnel of the regular army in 1909 numbered 3,221 officers and 26,745 men. During the year a new automatic rifle which fires 10 rounds was adopted.

The Mexican navy, though unpretentious, is quite sufficient to maintain the dignity of the Republic and protect its coast line of some 5,518 miles in case of emergency. The vessels which she possesses are destined for purposes of instruction, patrol duty, and transport service. The principal classifications of her men of war include 9 gunboats, 5 torpedo boats, and 1 unprotected cruiser. Six additional cruisers, it is stated, have been projected.

MEXICO IN 1909.

One of the notable events of the year 1909 was the meeting of Presidents DIAZ and TAFT, during which each President left the soil of his own country and paid a visit to that of the other, in the cities of Juarez, Chihuahua, and El Paso, Texas. President DIAZ refers to this extraordinary event most cordially in his annual message. In other international matters Mexico has taken a very important part; it had delegates at the International Musical Congress, at the Fourth Latin-American Medical Congress, at the International Medical Congress at Budapest, and at several other international meetings.

The Republic remained on a sound financial basis, although the income from customs duties was diminished to a certain extent. Notwithstanding this reduction, the total federal income was sufficient to meet the expenses of the budget and to leave a net balance in favor of the Government. Export duties also were less, but this reduction is more apparent than real, because it applied only to one or two articles. A careful adjustment on the part of the various departments of the Government, however, overcame any embarrassment which might otherwise have resulted from this reduced revenue.

A noticeable proportion of the exterior debt was paid off; the Government, therefore, congratulates itself that the financial crisis of 1907 has been well overcome. The balance of trade remained decidedly in favor of the Republic; in fact, it was the greatest balance ever recorded.

In agricultural matters during the fiscal year ending June 30, 1909, conditions were not altogether favorable. The wheat crop, for example, was so small that the Executive, in the use of one of the prerogatives granted him by law, lowered the duties so as to encourage its importation. On the other hand, Mexico actually exported cotton, a condition of affairs which twenty years ago would have been considered as impossible. During the last half of 1909—that is, the first half of Mexico's fiscal year—conditions improved, and the crops of the calendar year would seem to have been as good as usual.

The total foreign commerce was below that for 1908, both exports and imports having suffered loss. The loss in exports, however, was relatively lower than that of imports, so that the favorable condition of the balance of trade was not disturbed. The imports from all countries, excepting Canada, were less than in the previous year, but the amount received from the United States did not decline so sharply as that from the countries of Europe. When it comes to exports, however, the amount sent to the United States during the past fiscal year was even greater than that of the corresponding twelve months of 1908, while the exports to the other principal consuming countries fell off. Guatemala, the nearest neighbor to the south, received more this year than the year before, owing, undoubtedly, to the increased transportation facilities offered by the Pan-American Railway, the advantages of which have just begun to be understood. Canada, too, received more of Mexico's products, because of the establishment of new and direct steamship routes between the two countries. Henequen, coffee, and rubber were the principal vegetable products exported, and although they are still less than one-half the value of mineral products sent abroad, nevertheless the huge total of \$34,000,000 exported demonstrates that Mexico must be considered an agricultural as well as a mineral producing country.

During the year the actual increase in the railway mileage was small, but this represents only a slight factor in Mexico's remarkable railway development. A better illustration of the progress which the Republic is making, and of the plans for future expansion, is given by studying on the map the increased facilities produced by a few miles of added line. For instance, it is now possible to travel uninterruptedly from the Guatemalan frontier to that of the United States. From Veracruz passengers and freight are rapidly carried

to the Pacific Ocean, either by way of the Tehuantepec Railway or through Guadalajara and Manzanillo. Slight gaps have been, practically within the year, so filled that important seaports and interior towns are now connected, and by filling still other short gaps through routes will be established both east and west and north and south.

The new immigration law of Mexico, passed by the National Congress on December 22, 1908, went into effect on March 1, 1909, and proves that the promotion of immigration and colonization is receiving the serious attention of the Government. Señor Don José F. Godoy, the Mexican Minister to Cuba, was appointed in the latter part of the year as a special commissioner to examine and report upon all matters relating to immigration in the United States and the methods employed for regulating the same.

FINANCE.

The national revenues for the fiscal year ending June 30, 1909, amounted to \$49,387,755.39, and expenditures for the same period amounted to \$46,483,696.66. The receipts for the preceding year were \$55,905,467.05, and the expenditures \$46,598,726.51. There was therefore a decrease in the receipts amounting to \$6,517,711.66, and in expenditures of \$115,029.85.

The receipts for the year 1908-9, under the four major classifications, were:

Taxes on foreign commerce.....	\$20, 283, 570. 46
Interior taxes, applicable to the whole Republic.....	15, 986, 380. 49
Interior taxes, applicable to the Federal District and territories, only.	5, 440, 643. 56
Miscellaneous, public service, national property, etc.....	7, 177, 160. 88

The tax on foreign commerce was the customs duties, from which were collected \$18,969,860.43, a decrease of \$7,211,661.63 from the preceding year. There was a loss of \$704,415.08 in general interior taxes, principally due to a decrease on receipts from postage stamps and imposts on gold and silver production. There was an increase of \$210,275.97 in mining taxes collected from the Federal District and the territories, and an increase of \$1,540,562.97 in the miscellaneous receipts, principally derived from taxes on industrial enterprises, lottery, and mining revenue imposts.

The expenditures were divided as follows:

Legislature.....	\$639, 335. 08
Presidency.....	118, 541. 96
Judiciary.....	318, 072. 61
Department of Foreign Relations.....	930, 529. 32
Department of Government.....	6, 221, 663. 59
Department of Justice.....	783, 860. 63
Department of Public Instruction and Fine Arts.....	3, 229, 209. 96

Department of Fomento, Colonization, and Industries	\$1, 284, 544. 46
Department of Communications and Public Works.....	6, 568, 796. 86
Department of Treasury, Public Credit, and Commerce:	
Administrative services.....	4, 364, 588. 41
On account of public debt.....	12, 935, 491. 49
Department of War and Marine.....	9, 089, 062. 29
Total.....	46, 483, 696. 66

The total amount of the public debt in force on June 31, 1909, was \$219,400,065.60. Of this amount, \$150,475,498.10 was the exterior debt, and \$68,924,567.50 the interior debt. The principal items of the exterior debt are the 5 per cent bonds of the Consolidated Foreign Debt of 1889, \$103,163,654.56; the 4 per cent bonds of the debt of 1904, \$38,938,603.54; and the City of Mexico Municipal Loan, \$8,361,501.95. The principal items of the interior debt are:

3 per cent bonds Consolidated Interior Debt.....	\$22, 272, 675. 00
5 per cent bonds Consolidated Interior Debt, first series.....	9, 552, 350. 00
5 per cent bonds Consolidated Interior Debt, second series.....	9, 512, 400. 00
5 per cent bonds Consolidated Interior Debt, third series.....	9, 633, 850. 00
5 per cent bonds Consolidated Interior Debt, fourth series.....	9, 728, 200. 00
5 per cent bonds Consolidated Interior Debt, fifth series.....	8, 001, 350. 00

The exterior debt was reduced during the year by \$1,637,604.36.

COMMERCE.

The total foreign trade for the fiscal year ending June 30, 1909, was, in United States gold, \$193,816,823.75, as compared with \$232,248,832.64 for the year ending June 30, 1908, a decrease of \$38,432,008.89.

The values of exports were \$115,550,309.26, as compared with \$121,370,100.53 for the preceding year, a loss of \$5,819,791.27; and of imports \$78,266,513.49, as compared with \$110,878,732.10, a loss of \$32,612,218.61. The figures show a trade balance in favor of the Republic for 1908-9 of \$37,283,795.77, the greatest balance ever occurring in the history of the country and more than twice as great as the trade balance for both the two preceding years.

The imports, by principal countries of origin, was as follows:

Countries.	1907-8.	1908-9.	Countries.	1907-8.	1908-9.
United states.....	\$59, 000, 993	\$45, 280, 775	Italy.....	\$900, 835	\$900, 470
Great Britain.....	16, 372, 486	9, 897, 204	Canada.....	410, 872	718, 214
Germany.....	14, 160, 386	8, 568, 765	Austria-Hungary.....	800, 144	609, 497
France.....	9, 890, 104	6, 178, 645	British India.....	511, 345	491, 597
Spain.....	3, 761, 159	2, 588, 671	Switzerland.....	705, 652	419, 763
Belgium.....	1, 621, 373	952, 440	Japan.....	468, 118	291, 154

Of the countries exporting to Mexico more than \$250,000, Canada is the only one that increased its trade. Of those exporting less than \$250,000, Chile made an increase from \$59,624 to \$148,778, and

Guatemala from \$4,425 to \$9,591. There was a most remarkable falling off in the trade from Argentina, from \$174,810 to \$16,124.

The decrease in imports from the United States was 22.6 per cent, as compared with the general decrease of 29 per cent, showing that the United States more than held its own in Mexican trade. French trade declined over 37 per cent and British and German nearly 40 per cent.

The imports for the year 1908-9 under eleven major classifications, and showing whether free or subject to customs duty, are as follows:

Classification.	Free.	Dutiable.	Total.
Mineral substances.....	\$5,747,178	\$16,547,042	\$22,294,220
Vegetable substances.....	3,085,170	11,598,120	14,683,290
Machines and apparatus.....	174,896	9,885,855	10,060,751
Textiles and manufactures thereof.....	2,161	7,950,174	7,952,336
Animals and animal substances.....	806,194	5,478,009	6,284,203
Chemical and pharmaceutical products.....	1,645,664	3,182,196	4,827,861
Wines, liquors, and beverages.....		2,783,193	2,783,193
Paper and its manufactures.....	594,841	1,729,390	2,324,232
Vehicles and cars.....	934,454	1,222,191	2,156,646
Arms and explosives.....		1,266,550	1,266,550
Miscellaneous.....	68,085	3,565,644	3,633,729

Under the heading of mineral substances, iron and steel form the principal items, divided into two classes: First, construction and industrial material, \$7,727,594, and second, manufactures, \$2,448,688; total, \$10,176,282. Stones, earths, and manufactures thereof were imported to the value of \$8,200,185. Under vegetable substances are classified raw textile fibers, \$2,229,393; fruits and grains, \$4,043,630; wood and lumber, \$2,457,983; manufactures of wood, \$2,292,489. Under textiles and manufactures thereof were imported: Cotton goods, \$4,674,086; linen, hemp, etc., \$457,962; woolen goods, \$1,593,070; silks, \$739,138; silk mixed with other fibers, \$437,393; artificial silk, \$50,686. Under animal substances were: Live animals, \$673,669; meats, skins, horns, etc., \$558,515; animal products, canned meats, eggs, butter, cheese, etc., \$2,774,917; shoes, skins, hides, and fur manufactures, \$2,279,393.

Practically all of the live animals were imported from the United States, \$628,575 out of \$673,619. Very little fresh meat was imported into Mexico. The great bulk of preserved meats and fish, \$115,094 out of \$146,856, came from the United States; Norway was next with \$15,123. All fresh fish, oysters, etc., \$17,444, came from the United States. Canned meats were imported to the value of \$882,924, of which United States sent \$390,124, Spain \$285,791, France \$77,729, Germany \$36,510, and Switzerland, Norway, Great Britain and other countries lesser amounts. Eggs to the value of \$114,872 and lard to the value of \$1,025,284 were imported from the United States, as was also the bulk of butter, \$129,961 out of \$168,510. Denmark was the closest competitor in butter, with \$19,942. Cheese

to the value of \$206,983 was imported, of which Holland sent \$107,209, United States \$53,961, Switzerland \$26,454, and France, Italy, and other countries lesser amounts.

Out of \$139,891 worth of leather bands and ropes, the United States sent \$81,971 and Great Britain \$46,846, and of hair ropes and bands, out of \$47,992, Germany sent \$24,453, and Great Britain, \$22,004; of \$356,682 in dressed calf skins, patent leathers, goat and chamois skins, \$196,677 came from Germany, \$110,679 from the United States, and \$39,787 from France. Out of \$1,275,465 worth of boots, shoes, and slippers, the United States sent \$1,176,963, Spain \$83,381, France \$8,071, and Germany, Great Britain, Belgium, and Austria-Hungary very small amounts.

There was imported from the United States raw cotton to the value of \$2,813,471.

About one-half of an import of \$137,500 in rice came from India and \$41,000 from United States. Most of the grains were imported from the United States. Of \$191,217 of unmanufactured tobacco, there was imported from the United States \$154,658; Cuba, \$3,441; Turkey, \$2,204; and India, \$2,000. Of chewing tobacco, less than \$12,000, practically all came from the United States, as did also \$12,500 worth of cigarette tobacco. The bulk of the cigarettes, \$22,276 out of \$27,414, came from Cuba, as did also \$19,340 out of \$24,924 worth of cigars. Nearly all the sugar, \$99,385, came from the United States, as did also \$268,686 out of \$320,060 of wheat flour. The United States sent also over \$100,000 of cotton-seed oil and \$2,242,207 of building lumber. It sent also \$85,039 of barrels, casks, etc., \$332,893 of wood boxes, and \$300,000 worth of other wooden manufactures, not including furniture. The United States also sent nearly \$500,000 of all kinds of furniture, and Austria-Hungary about \$115,000.

The great bulk of copper, tin, and bronze, amounting to over \$1,750,000, came from the United States.

The great bulk of iron and steel was also from the United States. Among the principal items under this classification imported from that country were: Wire fencing, \$475,271; plows, \$270,564; iron and steel wire cable, \$124,864. Of iron piping, \$1,352,639, the \$197,404 worth was imported from Great Britain. From the United States came also iron and steel in sheets valued at \$533,479; steel rails, \$1,447,000; spikes, fish plates, nuts, bolts, etc., \$370,484.

Lime, cement, etc., were imported to the value of \$446,001, of which \$196,232 came from Germany, \$137,139 from Great Britain, and \$66,621 from the United States. There was imported from the United States coal to the value of \$1,405,952, and from Great Britain to the value of \$468,575, out of a total importation of \$2,110,608. A little over \$750,000, out of something less than \$1,000,000 in value,

of refined mineral oil, and crude oil to the value of \$901,622, came from the United States. Coke worth \$1,339,247 was imported; of this the United States sent \$785,192, Germany \$398,149, and Great Britain \$136,089.

Common bottles to the value of \$428,809 in all were imported, of which Germany sent \$252,636 and the United States \$163,654.

The bulk of the common glassware, \$105,205 out of \$216,686, was imported from the United States.

Under the heading of wines, liquors, and beverages, France sent brandy to the value of \$673,311, out of a total of \$918,981, only about one-seventh in the wood. Of bottled beer and cider, Spain sent \$64,300, the United States \$27,276, Great Britain \$19,158, and Germany \$11,027. Of a total import of wines in the wood of \$870,104, Spain sent \$496,731, France \$290,044, the United States \$51,552; and of the total, \$459,680, of wines in bottles (not including sparkling wines) Spain sent \$127,398, France \$174,422, Italy \$49,200. Of sparkling wines, the bulk came from France, \$139,014 out of \$153,952.

The value of the imports of agricultural and industrial machinery was \$9,443,547; of this amount imports from the United States amounted to \$6,054,132, from Great Britain \$1,785,295, from Germany \$1,154,976, and from Belgium \$248,674.

There was imported from the United States railway cars to the value of \$744,348 out of a total of \$907,097.

Under the heading of miscellaneous, some of the principal importations were: Lubricating oil, \$250,847; rubber machine bands, \$124,614; and rubber tubing, \$108,285, from the United States; musical instruments, from Germany \$197,616, and from the United States \$245,860; and perfumery, \$175,016, from France.

The total value of Mexican imports via Gulf ports was \$46,348,169.63. The principal Gulf port was Veracruz, with \$27,788,212.91; next to this came Tampico, \$13,582,226, Progreso, \$2,174,531.72, and Coatzacoalcas, \$1,927,229.73. In order, with lesser amounts, then came Frontera, Chetumal, Campeche, Isla del Carmen, Tuxpam, and La Ascension.

Imports via the northern frontier were of the value of \$25,497,182, received through the 14 custom-houses, the principal of which were Laredo, with \$10,792,672.57; Ciudad Juarez, \$5,618,250.45; Ciudad Porfirio Diaz, \$3,783,577.69; Nogales, \$3,064,637.03, and La Morita, \$1,449,021.38.

Imports via Pacific ports were of the value of \$6,331,471.52, and the principal ports were: Mazatlan, \$1,844,601.23; Guaymas, \$1,768,310.35; Santa Rosalia, \$979,752.26; Manzanillo, \$879,817.54; and Acapulco, \$287,365. In all there were 13 Pacific ports through which imports were received.

COMMERCE

FISCAL YEAR ~ 1908-9
FISCAL YEAR ~ 1907-8

IMPORTS

FROM ~	
UNITED STATES	145,280,775
GREAT BRITAIN	59,000,693
GERMANY	9,897,204
FRANCE	16,372,486
SPAIN	8,560,765
BELGIUM	14,160,386
ITALY	6,178,648
CANADA	9,690,104
AUSTRIA	2,588,671
HUNGARY	3,761,159
BRITISH INDIA	952,440
SWITZERLAND	1,621,373
JAPAN	900,470
	960,835
	718,214
	410,872
	609,497
	800,144
	491,597
	511,345
	419,763
	705,652
	291,154
	466,118

1908-9
1907-8

EXPLANATION

TO ~

UNITED STATES	186,472,342
GREAT BRITAIN	85,061,795
GERMANY	12,066,054
FRANCE	13,107,469
BELGIUM	6,429,506
CUBA	11,190,120
SPAIN	5,504,985
CANADA	6,196,915
GUATEMALA	2,903,474
BRITISH HONDURAS	3,018,238
	805,286
	1,030,551
	614,504
	1,165,593
	264,067
	93,506
	239,833
	228,790
	154,953
	169,422

1908-9
1907-8

EXPLANATION

MEXICO

EXPORTS \$115,560,308

IMPORTS \$76,666,673

TOTAL COMMERCE 1908-9

INT. BUREAU OF AM. REVENUE.

PRINCIPAL ARTICLES EXPORTED (1908-9)

SILVER	56,920,756	GOLD	11,942,350	HENNE - GUEN	10,191,672	COPPER	6,272,463	COFFEE	4,359,713	RUBBER	2,851,045	HIDES	2,270,537	GOAT SKINS	1,832,648	CATTLE	1,047,993	YULE	1,025,914	ANTHONY	1,000,000	BEANS	1,000,000	CABINET WOODS	1,000,000
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ESTIMATES

Imports of the value of only \$89,689.57 came via the southern frontier through the two custom-houses, Soconusco, \$87,807.91, and Zapaluta, \$1,881.66.

The exports by principal countries of procedure were as follows:

Country.	1907-8.	1908-9.	Country.	1907-8.	1908-9.
United States.....	\$85,061,795	\$86,472,343	Cuba.....	\$1,030,551	\$805,286
Great Britain.....	13,107,469	12,066,054	Spain.....	1,165,533	614,504
Germany.....	11,190,120	6,429,506	Canada.....	93,506	264,087
France.....	6,196,915	5,504,985	Guatemala.....	228,790	239,833
Belgium.....	3,018,338	2,903,474	British Honduras.....	169,422	154,853

Of the countries given above, the only ones that increased their trade were the United States, Canada, and Guatemala; the largest percentage of decrease was in the case of Germany.

The exports for the year 1908-9, under five major classifications, and showing whether free or subject to export duty, are as follows:

Classification.	Free.	Dutiable.	Total.
Mineral products.....	\$72,135,413	\$1,000	\$72,136,413
Vegetable products.....	26,438,960	7,026,312	33,965,277
Animal products.....	2,461,434	4,508,238	6,969,673
Manufactures.....	1,273,940	.....	1,273,940
Miscellaneous.....	1,205,006	.....	1,205,006
Total exports.....	104,014,759	11,535,550	115,550,309

Under the heading of mineral substances, the principal exports were: Gold and ores, \$19,605,038; silver and ores, \$36,920,796; copper and ores, \$10,191,672; lead, \$3,198,493; antimony and ores, \$1,025,914; and zinc ores, \$521,340.

Of gold ores, amounting to \$1,095,190, the United States took \$1,069,834, and of bullion gold, out of \$18,272,273 the same country took \$16,070,003. Practically all the cyanides and sulphates, less than \$250,000, went to the United States.

Of silver ores exported to the amount of \$4,567,807, the United States took \$4,487,497, and of bar silver \$10,485,197 out of \$13,237,633. Of silver, copper, and lead alloys, cyanides and sulphates, amounting in all to \$19,065,215, the United States took \$13,714,456 and Great Britain \$3,133,262.

With the exception of \$88,314 sent to Germany and \$1,544 to the United States, Great Britain took all the antimony and ores. Of copper and ores the United States took \$4,856,015, France \$2,963,000, Great Britain \$2,104,749, and Germany \$267,908. More than half the lead went to the United States, \$1,925,019, and to Great Britain went \$716,692. Practically all the zinc ore went to the United States.

Of vegetable products henequen was the principal, with a total exported value of \$11,942,350. Of this the United States took \$10,749,970 and Great Britain \$1,047,268. Ixtle was exported to the value of \$1,435,957; of this \$1,094,316 went to the United States and \$262,317 to Germany. Cotton worth about \$80,000 was exported; most of this went to Germany and Great Britain.

Next to the fiber class came coffee, exported to the value of \$6,272,163. Of this amount the United States took \$4,095,436, Germany \$901,085, France \$720,255, and Great Britain \$420,473.

The rubber export was \$4,359,713, of which amount \$3,968,359 went to the United States. The guayule export was \$2,270,537, of which \$1,606,890 went to the United States and \$675,469 to Germany.

Of cabinet woods, mahogany, ebony, etc., exported to a value of something over \$1,000,000, about 50 per cent went to the United States and about 40 per cent to Great Britain.

Spain and Cuba took nearly all the beans, worth over \$1,000,000.

The export of unmanufactured tobacco was \$853,650; of this Germany took \$435,309 and Belgium \$349,837.

Mexico exported 136,051 head of cattle, to the value of \$1,847,983. The exportation to the United States was 123,507 head, valued at \$1,703,823, and to Guatemala 12,464 head of cattle, worth \$140,080.

Of skins and hides exported, the United States took nearly the whole product: Goatskins, \$1,813,465 out of \$1,832,645; alligator skins, \$60,251 out of \$60,639; cattle hides, \$2,080,262 out of \$2,351,045; deerskins, \$229,726 out of \$231,140; miscellaneous, coyote, mountain lion, cat, etc., \$21,251 out of \$21,291, and pig skins \$6,643.

The principal manufactured products exported were: Sugar, \$256,064; cotton-seed meal and cake, \$313,755; palm-leaf hats, \$255,269; and manufactured tobacco, \$173,744. Of these, sugar worth \$251,351, cotton-seed products worth \$190,254, and tobacco, \$39,006, went to Great Britain. Palm-leaf hats, \$250,487, and tobacco, \$9,374, went to the United States. Germany took cotton-seed products, \$115,223, and France \$96,217 in tobacco.

The reports of the Statistical Bureau for the six months ending December 31, 1909, show a considerable improvement in Mexican foreign trade.

For the six months the total imports from all countries were \$43,330,275. By principal countries of origin, the amounts are as follows:

United States.....	\$24, 604, 448
Great Britain.....	5, 433, 898
Germany.....	4, 872, 247
France.....	3, 967, 945
Spain.....	1, 219, 466
Belgium.....	596, 327

The imports for the six months under the major classifications were:

Mineral substances.....	\$12, 326, 886
Vegetable substances.....	8, 886, 608
Textiles and manufactures thereof.....	4, 751, 350
Machines and apparatus.....	4, 620, 636
Animals and animal substances.....	3, 591, 169
Chemical and pharmaceutical products.....	2, 576, 077
Wines, liquors, and beverages.....	1, 476, 192
Paper and its manufactures.....	1, 336, 127
Vehicles and cars.....	1, 189, 691
Arms and explosives.....	578, 904
Miscellaneous.....	1, 996, 686

The total for all countries was \$61,129,659. The exports by principal countries of procedure for the six months were:

United States.....	\$47, 184, 228
Great Britain.....	5, 877, 858
France.....	2, 692, 203
Germany.....	2, 274, 380
Belgium.....	1, 948, 268
Cuba.....	414, 380
Spain.....	328, 391
Guatemala.....	172, 838
Canada.....	100, 119

The exports by major classifications were:

Mineral products.....	\$39, 187, 256
Vegetable products.....	16, 528, 764
Animal products.....	4, 455, 257
Manufactures.....	522, 145
Miscellaneous.....	436, 237

For the six months the imports via the Gulf ports were \$26,247,177; by the Pacific ports, \$3,399,918; by the northern frontier, \$13,625,025; and by the southern frontier, \$58,204.

INDUSTRIES.

The mines of Mexico are the principal source of national wealth and one of the leading fields of industry in the Republic. The total production of metal and mineral substances in Mexico for the fiscal years 1908-9 had a value of \$160,400,158 Mexican money, according to a report recently issued by the office of the Minister of Finance, Lic. JOSÉ IVES LIMANTOUR. Included in this production were coal and oil to the value of \$2,800,000.

The report shows that the exportation of Mexican gold bullion amounted in value to \$36,544,545 during the fiscal year; exportation of gold in ore and other forms aggregated in value \$2,633,144; total, \$39,177,690. The gold consumed in the arts in Mexico brought the grand total up to \$45,014,954.

This is a considerable increase over the showing of the preceding and earlier years. Up to 1891 the production of gold never exceeded \$2,000,000 in a year. Not until 1895-96 did it exceed \$10,000,000. In 1903-4 it exceeded \$20,000,000. Beginning with 1904-5, in which the Mexican Government established the reform in its currency system, the production of gold has increased rapidly.

Silver exported in the form of ore, cyanides, sulphides, etc., and in the form of bars, amounted in value to \$73,741,312; silver bought by the National Exchange and Currency Commission for coinage purposes amounted in value to \$3,334,784; total, \$77,109,742.

The exports of copper and its ores amounted in 1909 to over \$20,000,000, which represents a large proportion of the total production of that metal.

The development of the petroleum deposits in northwestern Mexico will give a great impetus to that part of the Republic and will enable manufacturing and mining operations to be carried on upon a larger scale than ever before. The Mexican oil fields, which cover an area of over 800 square miles, increased their output in 1908, as against that of 1907, by more than 500 per cent, and under existing conditions the production for the year 1909 was still further increased, aggregating more than 3,000,000 barrels.

The petroliferous lands extend from the hacienda of San José de las Ruinas, in central Tamaulipas, to the district of Valles, in San Luis Potosí (where the Ebano oil deposits are being worked), through the counties of Uzuluama, Tuxpan, and Papantla, in the State of Veracruz. Farther to the south is a region which embraces the Veracruz counties of Acayucan and Minatitlan and extends southward through the States of Tabasco, Campeche, and Chiapas. Petroleum has also been found in small quantities in the Federal District, in the States of Jalisco and Oaxaca, and at other points along the Isthmus of Tehauntepec. Some recent discoveries in the States of Chihuahua and Coahuila show the existence of paraffin oil in that district.

The use of fuel oil in mining operations having proved profitable to the company originally granted the concession to import petroleum free, the privilege was subsequently accorded other companies for the purpose of offsetting adverse market conditions by cheapening the handling of lower-grade ores.

The recent increase in transport rates of imported coal and coke was designed to afford equitable protection to the native product, it being claimed by coal producers that the national mines are able, with adequate protection, to compete with the foreign article in the country's markets and that the output of coke might within a short time be brought up to the requirements of the market.

The possible production of coal under present conditions, exclusive of the mines which supply the railroads, is estimated at 70,000 tons of commercial coal per month, plus the 40,000 tons which are converted into 20,000 tons of coke, while the additional 20,000 tons needed to supply the coal demand could easily be obtained. With respect to coke, the national companies still fall short by about 110,000 tons per annum in supplying the Republic, but it is claimed that proper government aid would produce an immediate increase in the output. Much of the coke consumed in normal times is supplied from the United States, as, owing to the greater cost of transportation from European ports, German and English producers are not able to compete with the United States.

The new mining law of Mexico, while it prohibits foreign companies from acquiring mines in the Republic in their own right, does not affect the requirements as to registration, such companies still remaining subject to the provisions of article 24 of the Commercial Code, which provides that—

Foreign corporations which desire to become established or to create branches in the Republic shall present and cause to be recorded in the Commercial Registry, in addition to a protocolized copy of their statutes, contracts, and other documents relating to their incorporation, an inventory, or their latest balance sheet, if they have any, as well as a certificate proving that they have been organized and authorized to do business under the laws of their respective countries, said certificate being issued by the Minister of the Republic accredited to each country, or, if there be no Minister, by the Mexican consul.

The annual value of cereal crops, fruits, and other products of the soil, and of cattle marketed, is slightly in excess of \$200,000,000. Of this amount the following are the chief items in the order of their importance and represent a fair average crop: Corn, \$50,000,000; cotton, \$17,000,000; henequen, \$16,000,000; wheat, \$13,000,000; sugar and molasses, \$13,000,000; spirits, \$10,000,000; coffee, \$8,000,000; beans, \$6,000,000; and woods, \$5,000,000.

The coffee crop for 1906 and 1907 fell far below the yearly average of 88,000,000 pounds. The estimates for 1909 placed the crop at 81,000,000 pounds. The best grades of Mexican coffee come from the States of Oaxaca, Veracruz, and Chiapas.

For the year 1908-9 the sugar crop is placed at 125,000 tons. The shipment of raw sugars to England is being profitably carried on and the acreage under cultivation is increasing each year. The sugar industry is protected by a law in force from February 15, 1908, making raw sugar, sugar candy, and refined sugar of all classes subject to an import tax of 2½ cents per kilogram, gross weight.

In accordance with the provisions of the Brussels sugar convention, a special duty on Mexican sugar has been levied in all the countries represented in that convention. This duty is imposed on account

of the increase made in 1908 by the Mexican Government in its tariff on foreign sugar imported into the Republic by which the duty of \$1.25 gold per 100 kilograms was raised to \$2.50 per 100 kilograms.

One of the immediate benefits to be derived from the construction of dams and canals on the Nazas River will be an immensely increased cotton yield in the Laguna district. This section of Mexico is a level basin with wonderfully fertile lands, suitable for the culture of cotton. The district is dotted with factories and traversed by railroads for the transport of both raw and manufactured products, while the surrounding mountains contain valuable mineral deposits. European experts claim that the Laguna cotton is of remarkably strong fiber and of excellent texture and color. The total crop of the Republic for 1909 was 80,000 bales, and as the consumption in the mills was about 155,000 bales, large quantities were imported to meet the needs of the home market.

In 1906 the cotton yield was far in excess of the demand and 50,000 bales were shipped to Europe, but lacking sufficient and regular water supply the growers are unable to accurately gauge the output from year to year. This uncertainty, however, will be overcome by the agency of the Fernandez dam. The growing of the so-called tree cotton is attended with profitable results.

The cultivation of rubber has passed the experimental stage, statistics showing that the rubber locally produced for export has increased from 7,000 pounds in 1900 to 182,219 pounds in 1907, of which not more than 4,000 pounds were of the wild variety. Those sections of the States of Tabasco and Chiapas, lying in what is known as the rubber belt, possess all the climatic and physical conditions required for the development of this culture, while the projected opening up of the district by a new railway line will contribute powerfully to the stimulation of capitalized interest.

The growth and commercial development of allied products are also being stimulated, and in connection with the increased shipments of guayule from Mexico during the fiscal year ending June 30, 1909, amounting to \$2,270,537, it is significant that receipts in the United States of rubber from Mexico, mainly guayule, showed a steady increase.

Since the development of the guayule industry, with its attendant financial success, prospectors have been investigating other rubber-producing plants and trees in Mexico in the hope of meeting with similar good fortune. They confidently expect to duplicate present achievements with the guayule plant by utilizing the *palo colorado*. They claim that the sap of this tree contains over 33½ per cent pure caoutchouc. The Mexican Government has contracted for the establishment of a factory to extract, refine, and manufacture the rubber obtained from the *palo amarillo* and *amate* trees. Included in the

concession for the development of this industry is the privilege of introducing duty free all of the necessary material, machinery, and appliances for the installation of the factory and exemption from taxation during the life of the concession, viz, ten years.

Fruits of various kinds, mainly of the citrus family, have a promising future, while in many sections the soil is excellently adapted to the cultivation of cacao. The cacao grown in Tabasco is highly prized by connoisseurs for its rich flavor and nourishing qualities. Three crops of cacao beans are gathered during the year, and it is estimated that 1,000 trees have an average production of 600 pounds, the price in this market at wholesale being 25 to 30 cents gold. The local demand absorbs the entire crop, which, according to the most reliable information, amounts to 2,000,000 pounds.

It is estimated that the growing of pecans in the Republic represents a production of \$400,000 annually, or 100 carloads, most of which go to the United States.

Hard woods are abundant in the forests, and another item of commercial importance is the recently discovered wax-producing quality of the *candelilla* plant.

Statistics relating to the tobacco industry of Mexico showed fully 1,000 tobacco factories in the Republic.

A law of December 21, 1909, provides for the establishment of national agricultural boards, whose object is to develop agriculture, and especially stock raising, forestry, and other related industries. These boards will encourage the holding of expositions of agriculture and will keep in touch with domestic and foreign boards of the same class. One feature of the work of these boards will be the publication of reports for the information and instruction of agriculturists, the awarding of prizes for treatises on agriculture, the establishment of agricultural schools, and the creating of scholarships to aid in the study of agriculture.

The Mexican Government is taking active measures to foment sericulture throughout the Republic, and instructions issued to the Department of Fomento provide adequate information to all persons desirous of engaging in this industry.

A state paper issued during the year by the Minister of Finance called attention to the possibilities of Mexico as a fruit exporter and urged the adequate development of this branch of trade. In furtherance of this policy, the State of Tabasco has passed a law establishing bounties for the shipment abroad of native fruits, the premiums being based upon local current prices. Tabasco is a large producer of bananas, cocoanuts, pineapples, and other fruits.

The live-stock industry in the Republic, according to the latest federal statistics, represented 5,142,457 cattle, 3,424,430 sheep, 616,139 hogs, and 4,206,041 goats. Chihuahua and Veracruz lead

in number of cattle; Zacatecas and San Luis Potosi in sheep; Tepic and Jalisco in hogs; and Coahuila, Durango, and San Luis Potosi in goats.

Authority to allow free importation of agricultural implements, cattle for breeding purposes, machinery, seeds, etc., was granted for a period of ten years dating from June 17, 1908. A concession to this effect will be allowed by the Minister of Fomento when, in the opinion of the department, it is impossible for the concessionaire to obtain similar articles on as good terms in the home markets.

RAILWAYS AND INTERIOR WATERWAYS.

The railway system of government-controlled lines covered in 1908 an extension of 19,321 kilometers (12,005 miles), to which should be added 4,840 kilometers (3,007 miles) of state-controlled roads. There were added last year 452 kilometers (281 miles) of new lines, so that, including the private railways of every kind, Mexico had, at the end of 1909, 24,613 kilometers (15,293 miles).

With the operation of the railway merger of Mexican railways, which became effective on and after midnight, January 31, 1909, a most important step in the direction of the control of public utilities was taken by the Mexican Government. The extent of road under the working of the merger was then 7,012 miles, in addition to which there were 265 miles of track on the Veracruz-Pacific route and 206 miles of the Tehuantepec National, also controlled by the Government. This progressive move is part of the general effort being made throughout Mexico to arrange for adequate land and sea transport of her products. New lines of railway are being opened up in the interior and on the west coast to meet the requirements of new steamship connections, either established or projected.

The Tehuantepec Railway, which crosses the Isthmus of Tehuantepec, carrying freights received from the steamship lines plying between the great ports of the United States and the eastern and western termini, transported during the year 1907, the first year of its operation, merchandise to the value of between \$25,000,000 and \$30,000,000, and in the second year to the value of \$38,000,000. This road, which is nearly 190 miles in length, was constructed chiefly with British capital and controlled by the Mexican Government, and was built for the specific purpose of handling freight between the Atlantic and Pacific oceans. The harbor of Salina Cruz, the Pacific terminus of this railway, is equipped with breakwaters inclosing a harbor area of over 130 acres, of which 96 have a depth of 33 feet, and a dry dock capable of accommodating the largest ship in the Pacific Ocean. The wharves, furnished with electric derricks and every modern appliance for the handling of the enormous traffic of

the Tehuantepec line, represent an expenditure of many millions of dollars.

The corporation which represents the railway merger and is known as the "National Railways of Mexico," and which is a consolidation of the Mexican Central, the Mexican National Railways, and several shorter lines, is capitalized at \$230,000,000, composed of \$30,000,000 first preferred, \$125,000,000 second preferred, and \$75,000,000 ordinary stock. The Mexican Government holds \$10,000,000 of the first preferred shares, \$10,278,290 of the second preferred shares received in exchange for second preferred stock of the National Railroad, \$20,000,000 of second preferred shares received in exchange for Mexican Central Railway stock, \$10,994,000 of ordinary shares received in exchange for preferred stock of the National Railroad, and \$63,730,000 ordinary shares received as part compensation of the Government's guaranty; or a total interest of \$115,002,290. This is a majority of the capital stock and makes the Government the deciding factor in the corporation.

In many respects the greatest event in the history of Mazatlan and the State of Sinaloa was the completion of the Southern Pacific Railway to that point on April 18, 1909. The operating company has secured concessions for the construction and operation of about 1,500 miles of road, receiving subsidies to the amount of about \$10,000,000.

The rail communication established between Guadalajara and Colima, and thence over the line already in operation to Manzanillo, gives Mexico a second transcontinental railway connecting the two oceans. The Tehuantepec Railway is of course the principal and shortest route across the continent, but now it becomes possible to leave the steamer at Tampico or Veracruz and to travel overland through Guadalajara to Manzanillo with only two changes of cars. As a result of the communication thus established, Colima, a small but richly resourceful section of the country, is provided with an Atlantic outlet for its products through the port of Tampico on the Gulf, while the importance of the Pacific port of Manzanillo is largely enhanced.

In the opening of the Pan-American Railway extension from Gamboa on the Tehuantepec road, to Mariscal, in Chiapas, on the Guatemalan frontier, another link in the great Pan-American System was completed. The length of the line from the Tehuantepec National to the border is 457 kilometers (284 miles). There remains only a gap of 40 kilometers, or 25 miles, to be constructed between the southern terminus of the Pan-American and the westernmost point of the Guatemala Central Railway. The inauguration on May 5, 1908, was made the occasion of great rejoicing in the State of Chiapas, being presided over by the governor and celebrated with enthusiasm by the inhabitants. The line passes through a district



containing fine coffee lands, the production of the region traversed being estimated at 40,000 tons annually, and it is from the transport of this commodity that the operating company hopes to pay the construction cost. At Gamboa the coffee will be shipped over the Tehautepec road and thence to Puerto Mexico, to be sent finally to Germany, the leading market for this product.

Among the great systems in the Republic are:

The Mexican Central Line, now part of the National Railways of Mexico, extending from Ciudad Juarez to the City of Mexico, a distance of 1,973 kilometers, or approximately 1,226 miles.

The Mexican National Railway traverses the district between Laredo, Texas, and Mexico City, a distance of 803 miles.

The Mexican railway, the first line constructed in the Republic, unites, by the main line, the cities of Veracruz and Mexico, a distance of 424 kilometers, or 263 miles. The Mexican connects with the Veracruz and Pacific Railroad at Cordoba, with the Mexican Southern at Puebla, with the San Marcos and Tecolutla line at San Marcos, and at Pachuca with all the lines that radiate from Mexico City.

The Mexican Southern Railway is a narrow-gauge line, but well built and in fine condition. It unites the City of Puebla, of 110,000 inhabitants, with the City of Oaxaca (40,000), the length of the line being 228 miles. The Ejutla Railroad, a short narrow-gauge line, was recently completed from Oaxaca to the mining town of Ejutla, a distance of 44 miles.

On the west coast of the Republic are nearly 1,000 miles of the Southern Pacific Extension into Mexico. The main line starts at Nogales, Arizona, and runs to the city of Mazatlan on the Pacific coast and to a distance of nearly 150 miles south of that point. There is also the old line extending northward to Los Angeles and San Francisco, California, from Nogales and Benson, Arizona. The distance from Nogales to Mazatlan is 735 miles. At the station of Algodon, a few miles east of the port of Topolobampo, the Pacific coast line connects with the Kansas City, Mexico and Orient Railway. When the gap between Mazatlan and the city of Guadalajara, a distance of about 150 miles from the terminus south of Mazatlan, is completed, the total length of the line from Nogales to Guadalajara will be 1,100 miles. Then the west coast line will be in direct connection with the entire railway system of the Republic. When all the contemplated branches of the Nogales-Guaymas-Guadalajara line are completed the Southern Pacific will have in Mexico 1,785 miles of road.

The Veracruz and Isthmus Railway is divided into two branches. The branch between Cordoba and Tierra Blanca is 58 miles and the branch from Tierra Blanca to San Marcos is 158 miles. These lines also have connection with the Tehuantepec National.

The Kansas City, Mexico and Orient Railway, when completed, will be the equal in value and importance of any other transportation project in the Republic. It will extend from the port of Topolobampo on the Pacific to Kansas City, Missouri. The line in western Mexico is now in operation to Hornillos, 130 miles east of the port of Topolobampo. From the City of Chihuahua the line is in operation westward to Bocoyan, 178 miles. One of the important systems of road now extending its lines into very fertile and highly mineralized, as well as heavily timbered sections of northern Mexico, is the Mexico Northwestern Railroad. This system is made of the old Rio Grande, Sierra Madre and Pacific, Chihuahua and Pacific, and the Sierra Madre and Pacific Railways.

The entire northern part of the peninsula of Yucatan is covered with a network of lines of the United Railways of Yucatan, under one management at the present time, the union having been made in the past two years. The system is divided into three trunk lines, with six branches. The trunk line of the northern division connects Merida, the capital city, with Progreso, the seaport. Its length is 36 miles and there are 13 stations on it, including the two terminals. The eastern division trunk line connects Merida with Valladolid; distance between termini 181 kilometers (112 miles). The western division trunk line extends from Merida to the city of Campeche, and is 173 kilometers (107 miles) in length. These trunk lines and branches have a total length of 669 miles of road which serve 151 stations.

It is proper to remark here that since the reconstruction in 1907-8 of the Tehuantepec National across the Isthmus, the building of the Pan-American line to cross the Tehuantepec National, thus making connections with Salina Cruz and Puerto Mexico, and the extension of the Mexican Central from Guadalajara and Colima to the Pacific port of Manzanillo, a traveler can start from any railroad station on the Rio Grande or from any port on the Gulf of Mexico and ride entirely across the Republic. The tourist can go from El Paso via the Southern Pacific to Guaymas; from Matamoros or Laredo by the old Mexican National and Mexican Central to Mazanillo; or from Tampico by the Mexican Central, the Mexican and the Vera Cruz and Isthmus lines, to the port of Salina Cruz.

A six-day through Pullman service from Salina Cruz, Mexico's most southern port, to New York has been established, with changes only at Mexico City and St. Louis. As the splendid port of Salina Cruz is only sixteen days by steamer from Valparaiso, Chile, this route promises to be a quick and popular one for passenger traffic from the west coast of South America to New York and European points.

The Tehuantepec Railway carried in 1909 over \$50,000,000 worth of freight. The Panama Railroad, engaged chiefly in work in behalf of the Panama Canal, carried in 1907 about \$12,000,000 worth of merchandise originating in the United States and bound either for other parts of this country or for foreign countries, in 1908 about \$9,500,000 worth, and in 1909 about the same total as 1908.

Of the nearly \$52,000,000 worth of merchandise passing over the Tehuantepec line in the fiscal year 1909, about \$24,500,000 worth moved from the Pacific end, destined to ports on the eastern coast of the United States, and \$27,000,000 worth moved from the eastern end, destined for Pacific ports. Of the \$24,500,000 worth of merchandise received at the Pacific terminus of the road, over \$18,000,000 worth was from Hawaii, being almost exclusively sugar for the refineries of Philadelphia and New York, while over \$5,000,000 worth originated on the Pacific coast, chiefly at San Francisco, being composed of miscellaneous merchandise. Of the \$27,000,000 worth passing westwardly over the Tehuantepec line, \$23,000,000 was sent to ports on the Pacific coast—San Francisco, San Diego, and Seattle—and \$3,000,000 worth to Hawaii.

The Mexican Government has granted a concession for the construction of a railway from Port Lobos, on the Gulf of California, to Sasabe, on the boundary line with the United States. No other railway shall be constructed within a zone of 29 miles wide covering the entire length of the line and including Port Libertad. Twenty miles of track must be completed by April 26, 1911. The railway will penetrate the district of Altar, which is rich in low-grade ores.

A syndicate has been formed to build a railway in the State of Jalisco from Chamela, a port on the Pacific Ocean, to Guadalajara, the capital of Jalisco. The road will run from Chamela to La Vega, 43 miles from the city of Guadalajara. At La Vega it will connect with the Ameca line of the National Railways. The main line will be about 200 miles long and the Ayutla branch about 16 miles long. The construction of this railway was planned to commence during the early part of 1910 and to be pushed forward to completion as rapidly as possible.

The Federal Government has granted a concession for the construction of a railway from Santa Lucrecia, in the State of Veracruz, to a point in the State of Yucatan, a distance of about 1,000 kilometers. The new line will form a connecting link between Mexico City and Merida, Yucatan, and the work of construction is to begin at once. Part of the road will pass through swampy and densely forested land and through long stretches of entirely undeveloped country. Beginning at Santa Lucrecia the road will run southeast out of the State of Veracruz into the State of Chiapas, thence striking the peninsula

in the State of Tabasco, thence northeast into the State of Campeche, and thence into the State of Yucatan, connecting at some point in that State with the United Railroads of Yucatan.

The rivers of Mexico, although numerous and some of them of considerable length, afford but scanty means of navigation, due to their small volume of water and the fact that they are apt to rise suddenly during the rainy season and fall rapidly during the dry season. The Usumacinta, Grijalva, and Panuco are the most important, the two former being navigable for ocean steamers a distance of 90 miles and 75 miles, respectively, both being navigable for light-draft vessels a considerable distance farther. The Panuco is navigated by a regular line of steamers for 250 miles. The Rio Grande, the Lerma, in which are the beautiful Falls of Juanacatlan, and the Mexcala or Rio de las Balsas, are navigable for short distances only.

Mexico has a number of beautiful and extensive lakes, among which Chapala, 100 miles long by 35 miles wide, presents the most picturesque scenery. Small steamers ply on it and small craft on Lakes Cuitzeo, Patzcuaro, Zumpango, Xaltocan, San Cristobal, Texcoco, Chalco, and Xochimilco in the valley of Mexico, near the capital of the Republic.

MEANS OF APPROACH.

Within a coast line of 2,800 miles on the Pacific and of 1,600 miles on the Gulf of Mexico and the Caribbean Sea, Mexico has no less than 24 ports on the Gulf of Mexico and 31 on the Pacific Ocean. Most of the natural harbors of Mexico are on the Pacific side, among them the splendid Bay of Acapulco, considered one of the most beautiful bays of the world. While the Atlantic side offers but few natural ports, some of them, especially Veracruz and Tampico, have been improved and made accessible, so much so that these two ports are now the most important commercial centers of the Republic.

Following are the ports of entry open to foreign trade, the other ports being open to the coastwise trade only:

Gulf ports: Campeche, Coatzacoalcas (Puerto Mexico), Chetumal, Frontera, Isla del Carmen, Isla de Mujeres, Progreso, Puerto Morelos, Tampico, Tuxpam, and Veracruz.

Pacific ports: Acapulco, Altata, Bahia de la Magdalena, Guayamas, La Paz, Manzanillo, Mazatlan, Puerto Angel, Salina Cruz, San Blas, San Jose del Cabo, Santa Rosalia, Todos los Santos, and San Benito.

Mexico may be reached by sea direct via steamship lines from New York, the Gulf ports of the United States, the west coast of Canada and the United States, and from European, Cuban, and Central American ports, or from the west coast of South America via Panama. There are also steamship lines running from Montreal, Canada, and from China.

Several lines of steamers maintain a regular coastwise service between the different ports of Mexico.

There are four points on the border of Mexico at which through connection is made between railways of the Republic and those of the United States, viz, Nogales, Ciudad Juarez, Ciudad Porfirio Diaz, and Laredo.

Traffic with Guatemala is now maintained by means of the Pan-American Railway in connection with temporary ferries across the Suchiate River at Mariscal.

POSTS AND TELEGRAPHS.

The Government spared no effort during the fiscal year 1909 to increase efficiency of administration as well as to extend postal facilities to the remotest parts of the Republic.

On July 1, 1909, the number of post-offices in the Republic aggregated 2,964, which handled during the twelve months next preceding 184,000,000 pieces of mail matter. Interior money orders were issued during the year to the amount of 50,110,000 pesos national money. Foreign postal money orders were issued during the half year from January to June, 1909, to the amount of 2,287,000 pesos national money. The system of advice of payment was introduced in the postal money-order service with Germany, Canada, France, Great Britain, and Salvador, and on August 1 a convention went into effect establishing a money-order service for a maximum amount of 200 pesos national money per order between Mexico and Austria, including the Austrian post-offices in the Levant.

The postal money-order convention between Mexico and the United States, concluded in Washington on February 2, 1909, became effective October 1, 1909, and will continue in force until one year after either country shall have notified the other of its intention to terminate it.

On October 12, 1909, the parcels-post convention made in the City of Mexico on May 4, 1909, between the representatives of the Governments of Mexico and Canada, became effective.

The parcels-post convention made between the representatives of Mexico and Denmark for the exchange of postal parcels between Mexico and the Danish West Indies was ratified by Mexico on September 23, 1909.

Additions to the federal telegraph lines were made between January and June, 1909, to the extent of 2,114 miles, making the present mileage over 42,750 miles.

The progressive spirit of the Republic is shown by the serious attention devoted to wireless telegraphy. As early as 1903 the wireless land stations erected at Guaymas, Sonora, and at Santa

Rosalia, Lower California, had been successful in establishing communication with steamers, either outgoing or incoming, and in 1909 the Government announced the establishment of additional wireless stations at Payo Obispo and Xcalac, in the Quintana Roo Territory, bringing the number of such stations in the Republic up to six.

EDUCATION.

In the City of Mexico, the Federal District, and the national territories education is directly in charge of the Secretary of Public Instruction. The States have control of primary and secondary education, while various institutions of public instruction of a higher grade, established within the States, are subject to the supervision of the national government.

In the larger cities may be seen public school buildings, with modern equipments, which compare favorably in size, arrangement, material, and construction with those in cities of the United States. In addition to what are known as common, primary public schools, there are in a few of the older cities colleges and institutes of learning which have been long established. At Veracruz there is a fine military college, and there the Government has in course of construction a naval academy building patterned after that at Annapolis in the United States of America. In the City of Mexico are many national colleges, such as the law school, the medical school, the school of engineers, of agriculture and veterinary surgery, of fine arts, music and declamation, schools of arts and trades for men and for women, and normal colleges for men and for women. Besides the military college in Veracruz just mentioned, there is also the splendid military academy at Chapultepec and a military training school at Tlalpam.

Education in the primary public schools is compulsory, attendance being required of all children between the ages of 6 and 16. In the high schools the attendance is not compulsory, although great encouragement is given to the graduates of the lower schools to attend them. English is taught in these high schools, and the general curriculum is about the same as in the United States.

It is safe to say that of Mexico's population there are 1,000,000 children in the public schools, and the institutions of higher instruction are all remarkably well attended by the ambitious youth of the nation.

In celebration of the centennial of the independence of the Republic the Government, in September, 1910, will combine many of these colleges, at present acting in harmony but operated under independent management, into one organic whole, to be called the National University of Mexico.

Various scholastic reforms have been made in both the day and night educational institutions of the Republic. New schools have

been opened in the federal territories and at various other points where they would do the best service.

SEÑOR JOSÉ IVES LIMANTOUR, Secretary of Finance of the Republic of Mexico, has donated \$98,500 for the construction of a students' home for the use of students who go to complete their education in the professional art schools. Comfortable apartments and good board will be provided at a small price.

GENERAL INFORMATION.

A concession granted by the Mexican Government to a colonization enterprise under Canadian auspices carries with it the privilege of denouncement and purchase of 1,500,000 acres in the State of Guerrero, with a subvention of nearly \$3,000,000 for irrigation purposes, together with exemption from taxes and import duties to colonists. The Mexican Government also undertakes to establish an experimental farm within the boundaries of the colonized area for the study of the most efficient methods of growing native and imported farm products. The lands which have been denounced are rich producers of cocoanuts, cotton, tobacco, corn, and tropical fruits. Provision has been made for adequate steamship service between Canada and the port of Zihuatanejo and adjacent harbors. While outside colonization will be largely confined to Canadians, it is planned to provide for the settlement of Mexican citizens upon the company's grounds.

The Mexican Institute of Mines and Metallurgy, a society similar to the American Society of Civil Engineers, has been organized in the City of Mexico. Spanish is the official language of the institute and the membership consists of active, associate, and honorary members.

Touching upon agricultural conditions, President DIAZ in his message to Congress (April 1, 1910) says that, thanks to the cooperation of Congress, the administration has been able to persevere with greater earnestness than ever in its policy of encouragement of agriculture. This important industry has been given a great stimulus by the creation of chambers of agriculture and the reorganization of the agricultural administration by the establishment of a general bureau of agriculture which will soon enter upon its duties and give practical direction to agricultural enterprises in all their forms by bringing them into line with the evolution demanded by the progress of the country. In the meantime the programmes of agricultural instruction have been actively carried out; propaganda looking to the dissemination of information necessary for the introduction of improved methods of husbandry has been conducted, practical farmers have visited the farming districts, and distribution has been effected of plants, seeds, grafting scions of the grape vine immune to phylloxera, and more than 600,000 cuttings of the vine.

The conventions negotiated at the Second Peace Conference have been ratified, and the Government, on September 6, subscribed to the international agreement concluded in Madrid in 1891 with regard to the registration of trade-marks. The conventions on public hygiene, signed at Paris in 1903 and at Rome in 1907, have also received the formal adherence of Mexico.

On July 26, 1909, the Republic of Mexico was included in the arrangement of Madrid of April 14, 1891, relative to the international registration of trade-marks.

The compilation of laws undertaken by the Department of Justice has been brought up to date and the work of revising the penal code is nearly completed.

The geographical exploration commission during 1909 continued surveys and completed maps of many sections of the Republic. The Nazas River region is at present being studied with a view to determining its cultivable areas as affected by the development of irrigation projects. Measures are being perfected for the connection of the Mexican Geodetic Survey with that of the United States, and for the establishment of such stations as are required for the completion of the meteorological service.

Among the more important public improvements made at the capital the following may be mentioned: The construction of 4,000 meters of new sewers and 4,500 meters of house drains; the enlargement of the penitentiary by the addition of 276 new masonry and steel cells, at a cost of about \$800,000; the increase in the number of beds at the public dormitory from 138 to 245; the extension of the city's telephone system so as to include neighboring towns; and the laying down of new paving to an extent of 17,000 square meters.

The management of the National Railways of Mexico is establishing three schools in which Mexicans will be given instruction on all matters pertaining to railroading. It is the intention to offer opportunity for young Mexicans to fit themselves for active industrial work on the railways in the Republic.



NICARAGUA

GEOGRAPHICAL SKETCH.

Nicaragua, the largest of the Central American Republics, is situated between Honduras on the north, Costa Rica on the south, the Caribbean Sea, and the Pacific Ocean. Its territory extends over an area of 49,200 square miles, equal to that of the State of New York, with a population estimated at about 600,000.

Two mountain ranges traverse its entire territory. Due to this fact it enjoys a diversity of climate, products, and soil. The fertile plateaux are extremely healthful and pleasant, while the lowlands are hot and tropical. Coffee, cacao, and bananas are the principal articles of export, but sugar cane, tobacco, cotton, maize, and wheat are successfully grown. Numerous minerals and precious metals are found in the mountains. The vast forests contain over 40 different species of trees furnishing oils and extracts used for industrial and medicinal purposes. Mahogany and other valuable cabinet woods are largely exported.

In the lacustrine depression, in which are situated the picturesque lakes Nicaragua and Managua, are extensive plains affording excellent pasturage for cattle, and it is in this part of the country that most of the larger cities are to be found. The east coast, commonly known as the Mosquito coast, is but sparsely settled. The Indians inhabiting the Mosquito country are noted for their unique industries, such as the manufacture of various kinds of jewelry, especially the so-called Panama gold chains, hammocks, straw hats, and pottery, all of which find a ready market.

HISTORICAL SKETCH.

COLUMBUS, on his fourth and last voyage, in exploring the coast of Central America, and after touching at Cape Honduras, was driven by the stress of weather to take shelter where the coast line turns abruptly from west to south. This point, which he named Cape *Gracias á Dios* (Thanks to God), is in Nicaragua, and it has retained ever since the name given by COLUMBUS. On September 25, 1502, he landed at the mouth of the Rama and took possession of the country in the name of the Spanish Crown.

In 1524 HERNANDEZ DE CORDOBA was dispatched from Panama to bring the country under subjugation. This he did, defeating the Indians and making several settlements. Some years prior to this GIL GONZALEZ had explored the country and had discovered Lake

Nicaragua. In 1570 Nicaragua became a part of the captain-generalcy of Guatemala.

Among the numerous invasions which Nicaragua, together with other Central American States, suffered during the sixteenth and seventeenth centuries, those of Sir FRANCIS DRAKE and HENRY MORGAN are the most noteworthy. In 1740 the British invaded the Mosquito coast, and, establishing friendly relations with the warlike Misskito or Sambos Indians, who had never submitted to the Spanish invaders, took possession of that part of Nicaragua. They retained possession of this territory until the year 1786, when, by a treaty with Spain, it was exchanged for what is now known as British Honduras, or Belize, and the land was restored to Spain. The Mosquito Indians subsequently acknowledged the sovereignty of Nicaragua.

On the 15th of September, 1821, the independence of the *Federación de Centro-América* having been declared in Guatemala City, Nicaragua became a State of the Federation, and with it, in the year 1822, a part of ITURBIDE's Empire of Mexico. With the fall of the Empire it again formed part of the federation.

Upon the dissolution of this union Nicaragua declared its absolute independence, on April 30, 1838, and the constitution of the Republic of Nicaragua was formally proclaimed on November 30 of the same year.

CONSTITUTION AND GOVERNMENT.

The present constitution was promulgated March 30, 1905. Under it the legislative power is vested in a National Assembly composed of one chamber, the members of which are elected by popular vote for a term of six years, the chamber being, however, partially renewed every two years.

The executive power is exercised by the President of the Republic, assisted by the following Cabinet of Ministers, or Secretaries: Minister of Foreign Affairs and Public Instruction, Minister of Government, Justice and Police, Minister of Treasury and Public Credit, Minister of War and Marine, Minister of Public Works. The President is elected by direct vote for a term of six years, every citizen over 18 years being not only entitled but obliged to vote. There is no Vice-President, but the Assembly elects three so-called *designados*, one of whom takes the President's place in case of absence or disability. These Secretaries are appointed by the President and are responsible both to the President and the Assembly. The salary of the President is 24,000 pesos (\$9,600) per annum.

The National Supreme Court, two Courts of Appeals, and a number of minor courts form the judiciary of the country. The justices for these courts are elected by the National Assembly for a term of six years.

INTERIOR GOVERNMENT.

For administrative purposes the country is divided into thirteen Departments, three districts, and two *comarcas*, which are again subdivided into municipalities. The Governors of these Departments, districts, and *comarcas* are appointed by the President of the Republic. The governing boards of the municipalities are elected by popular vote. The Departments of Nicaragua are:

Department of—	Capital.
Managua.....	Managua, also capital of the Republic.
Leon.....	Leon.
Granada.....	Granada.
Masaya.....	Masaya.
Chinandega.....	Chinandega.
Matagalpa.....	Matagalpa.
Carazo.....	Jinotepe.
Nueva Segovia.....	Somoto.
Jinotega.....	Jinotega.
Rivas.....	Rivas.
Esteli.....	Esteli.
Jerez.....	Boaca.
Zelaya.....	Bluefields.
District of—	
Rio Grande.....	Barra de Rio Grande.
Prinzapolka.....	Barra de Prinzapolka.
Siquia.....	Rama.
Comarca of—	
San Juan del Norte.....	San Juan.
Cape Gracias a Dios.....	Gracias a Dios.

The capital of the Republic is the city of Managua, with a population of 40,000; but Leon, with 60,000 inhabitants, and Granada, with 20,000, are important commercial centers.

ARMY AND NAVY.

The fundamental law of Nicaragua vests the command of the land and naval forces of the Republic in the President. The "Ordenanza Militar" of 1900 prescribes that the permanent army of the Republic shall consist of infantry, cavalry and artillery. This "Ordenanza Militar" of 1900 superseded previous regulations governing the organization of the army and provided that the infantry should consist of divisions, brigades, battalions and companies; the cavalry of brigades and squadrons; and the artillery of brigades and batteries. The Constitution of Nicaragua provides that Congress shall fix the number of the armed forces at each ordinary session.

The navy consists of several vessels carrying guns, whose chief function has heretofore been the prevention of smuggling.

NICARAGUA IN 1909.

Owing to the unsettled state of the Republic during the year it has been impossible to gather such information as would permit of the presentation of conditions, agricultural, commercial, and industrial, at the close of the year 1909. This is regrettable because Nicaragua is, in fact, a rich and should be a productive country, and it is to be hoped that the return to normal conditions will see the Republic once more listed among the prosperous nations of Latin America.

FINANCE.

According to a statement of the Supreme Tribunal of Accounts, made April 28, 1910, the entire indebtedness of the Republic on December 31, 1909, amounted to 67,229,533.39 pesos silver. The value of a peso on this date was approximately 37½ cents. This would figure the entire indebtedness as \$25,211,075.02 United States gold.

The statement of the Tribunal of Accounts covers the entire debt situation from June 30, 1893, to December 31, 1909. On the former date the total indebtedness was 4,532,129.11 pesos, divided as follows:

	Pesos.
Interior debt.....	2, 654, 595. 39
Treasury vouchers.....	691, 076. 53
Interior loans.....	493, 194. 42
Obligations on current account.....	693, 262. 77

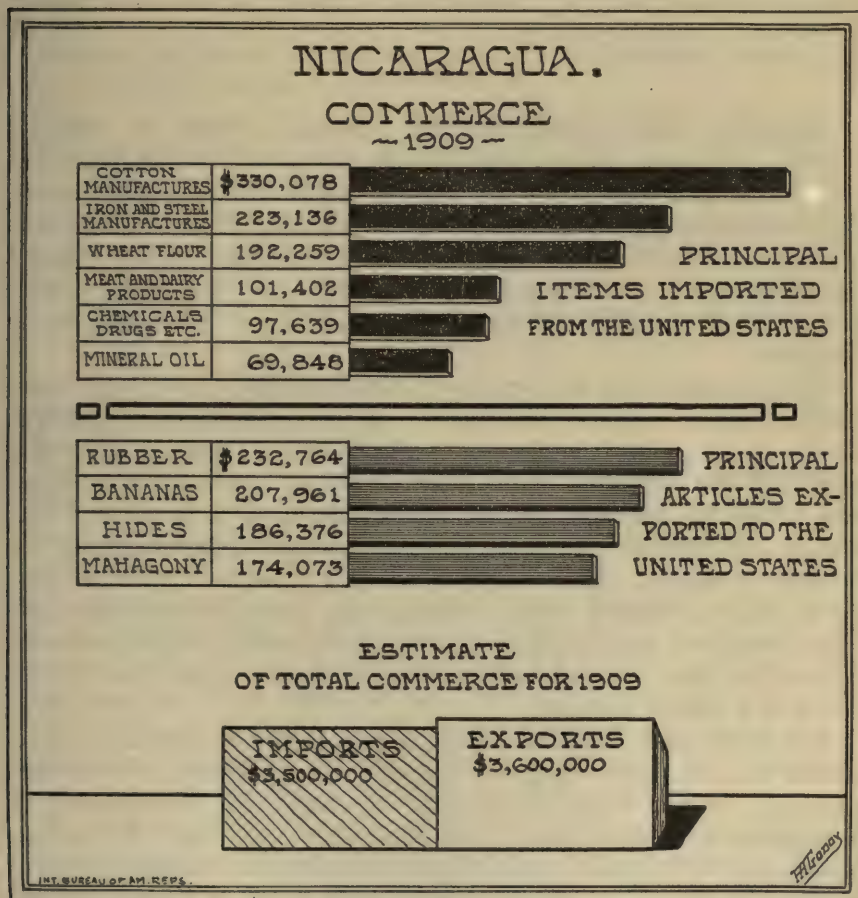
During the sixteen years there has been added to the foreign debt 82,995,969 pesos, on which amount there has been paid off 49,065,167.73 pesos, leaving a balance of 36,585,396.66 pesos.

In 1893 there were outstanding Treasury vouchers to an amount of 691,076.53 pesos, since which time vouchers to the amount of 44,506,396.09 pesos have been issued, and 24,363,993.94 pesos paid, leaving a balance now due of 20,833,478.68 pesos. The interior loans of 1893 were 493,194.42 pesos. Loans on this account have since been contracted to the amount of 6,044,227.21 pesos, and an amount of 5,272,459.10 pesos paid, leaving a balance of 1,264,962.53 pesos. The obligations on current accounts were 693,262.77 pesos in 1893. Since then there has been added to these obligations 59,157,196.33 pesos, and paid off 51,305,483.58 pesos, leaving a balance due of 8,545,695.52 pesos.

The principal item under Treasury vouchers are Treasury bank notes to the amount of 12,149,103.95 pesos outstanding. The principal items of interior loans are the Force loans of March and May, 1903, amounting to 823,347.03 outstanding, and the Force loan of 1909, amounting to 43,470.50.

COMMERCE.

The figures for foreign commerce for 1909 have not yet been published by the Government. There is an entire dearth of available data from which to form any fairly approximately correct estimate of either the amount or details of imports and exports for that year. As far as any data are available, it would indicate total imports of about \$3,500,000, and exports of \$3,600,000.



From the reports of the United States Bureau of Statistics for the year ending June 30, 1909, there was exported from the United States to Nicaragua goods to the value of \$1,355,287, and imported from Nicaragua, \$1,004,811.

The principal items of export from the United States to Nicaragua were:

Cotton manufactures.....	\$330,078
Iron and steel manufactures.....	223,136
Wheat flour.....	192,259

Meat and dairy products.....	\$101,402
Chemicals, drugs, etc.....	97,639
Mineral oil.....	69,848

In iron and steel manufactures, the principal item was machinery, \$99,797.

The principal imports from Nicaragua into the United States were:

Rubber.....	\$232,764
Bananas.....	207,961
Hides.....	186,376
Mahogany.....	174,073

INDUSTRIES.

Agriculture and mining are the principal sources of national wealth. The area under cultivation has increased in recent years, the chief product being coffee. Nicaraguan coffee is of superior quality and commands good prices, the finest plantations lying in the north-western districts. In Matagalpa and Jinotega the crops are worked by colonies of Americans and Germans, who apply the natural water power of the country to the operation of such machinery as is required.

The principal crops are corn, rice, beans, bananas, cacao, sugar cane, indigo, rubber, tobacco, and fruits, while an abundance of precious woods are found in the forests of the country. Among the noted woods of the Republic is the "Arbol cortés" (*tecoma Sideroxylon*) tree, which is celebrated for the extreme hardness of its wood. The forests also contain mahogany and cedar, which figure largely in the country's exports, many valuable timbers, dyewoods, such as campeche, and medicinal plants. Gums and resins abound, and the native camphor tree is said to yield a variety equal to that produced in the Far East. Vanilla of an excellent quality grows freely, and senna is a native product.

The coffee yield for 1907-8 was about 14,000,000 pounds. It is stated that the coffee crop of Nicaragua for the season of 1909 will probably yield a total of 4,000,000 pounds. The Department of Matagalpa is credited with 1,500,000 pounds and that of Jinotega with 2,500,000 pounds. The original estimate had been in excess of 16,000,000 pounds, 14,000,000 representing the yield for 1908. The 1909 crop promised to be one of the most abundant in the last ten years, but on account of the revolution hardly one-third of it was harvested, most of the men being in the military service.

Sugar growing is profitably conducted, the production in 1907, including the by-products—molasses, aguardiente, and alcohol—showing a total valuation of \$1,122,400. These plantations had 931 wooden and 225 iron mills in operation, and turned out nearly 4,000 tons of refined sugar.

Cacao ranks in importance after both coffee and sugar among the cultivated resources of western Nicaragua, and it is recognized as a remunerative product. At present the entire output is consumed in the country, the selling price being from 20 to 25 cents gold per pound. Two varieties of cacao trees are grown, and the Government is encouraging the industry by granting premiums for every planted tree coming into bearing. The average yield from each tree is about 2 pounds when in full bearing, or about 600 pounds to the acre.

Bananas are grown in large quantities in the Bluefields region and shipped to New Orleans.

Tobacco is grown in several districts, the best being produced on the island of Omotepe, in Lake Nicaragua.

Rubber is collected in the forests and there are young plantations on the coast. Owners of rubber lands must register them, stating the names of properties, situation, approximate extent, number and age of trees, stage of development, and estimated annual product. The exportation of rubber is restricted by certain formalities, the violation of which subjects the exporter and the customs administrator who permits the shipment to a fine.

Cattle, horses, and swine are reared, the number of cattle being estimated at about 1,200,000.

Of the more than 500 mines registered in the Bureau of Statistics of the Republic, 494 are producers of gold, while silver, copper, and quarries of valuable stone are scattered throughout the country.

American and English companies have secured mining concessions in various districts, and it is probable that increased investments will be made by them in the mines of the country. A number of the principal mines on the west coast, included in which are the Santa Francisca, San Lucas, Amaya, San Cristobal, Quilali, and San Juan Tetelpaneca, are in the hands of English capitalists, while the Leoneas mine, near Matagalpa, has recently been acquired by a company largely interested in West Australian mining properties.

The Atlantic slope is the great placer-mining district of the country, Prinzapolka being the center of active operations at present. There are rich quartz mines in this district, and in the district of Leguoia large gold-bearing reefs are known to exist, but they are at present undeveloped.

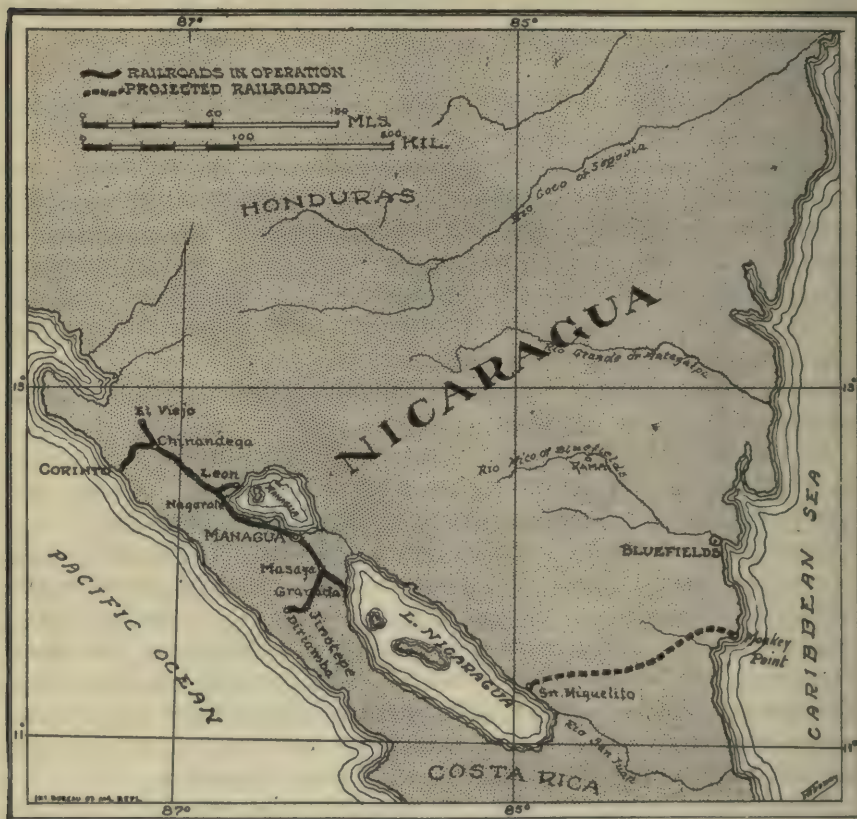
An estimate of the gold exports of Nicaragua for 1908 fixed the valuation at \$933,171.

The outlook for an increased development of the mining industry will be encouraging when the country is settled. A railway to penetrate the heart of the mining district, passing through a rich agricultural section, is projected, and will be a contributing factor to an increased mineral production.

Manufacturing industries are confined mainly to articles of domestic consumption, and include the manufacture of furniture, boots and shoes, sugar, rum, beer, candles, cigars, cigarettes, and soap.

RAILWAYS AND INTERIOR WATERWAYS.

According to information furnished by United States Consul OLIVARES at Managua, the National Railroad of Nicaragua is the only line operating in the Republic. It traverses a comparatively small



MAP SHOWING RAILROADS IN OPERATION, AND PROJECTED LINES, IN NICARAGUA.

district in the extreme western portion of the Republic and with its several branches represents a total length of 275 kilometers (171 miles). Starting from the port of Corinto on the Pacific coast, it extends in a northwesterly direction for a distance of some 12 miles to the city of Chinandega and thence southeastwardly to the cities of Leon, Managua, Masaya, Granada, and Diriamba.

About 20 miles of the southeastern section of this railroad penetrates one of the chief coffee-growing regions of Nicaragua. A portion of these regions is somewhat mountainous in character, the highest

point being 1,644 feet above the sea level. With this exception the road extends through a comparatively low and unbroken country which is devoted chiefly to agriculture and stock raising.

The gauge of the road is 42 inches, the maximum grade 28 feet to the thousand, and the weight of the rails 30 to 40 pounds per yard. The road was built by sections, covering a period dating from 1884 to 1903. It is the property of the Republic, but on December 26, 1903, was leased for a term of ten years to a citizen of Germany. The terms of the lease provide that 25 per cent of the earnings shall be paid to the Nicaraguan Government, 10 per cent shall be devoted to repairs, and the remainder goes to the holder of the lease, who must pay therefrom operative and administrative expenses.

In the surveys for an Intercontinental Railroad from New York to Buenos Aires, the National Railroad of Nicaragua was accepted as one of the integral parts of the system, the portion embraced extending from Corinto to Granada.

From Monkey Point, on the Atlantic, a railroad has been surveyed to extend to San Miguelito, a distance of 116 miles, and a road has been surveyed from Momotombo, on Lake Managua, to Matagalpa. Traffic is now carried on between Momotombo and Managua by steamers.

Nicaragua has a number of rivers of varying sizes and lengths which flow eastward through the Republic into the Caribbean Sea, and many small unnavigable streams that discharge into the Pacific Ocean. The four principal rivers of the country, all of which drain the eastern slope of the cordillera, are the San Juan, the Coco or Segobia, the Grande or Matagalpa, and the Mico or Bluefields, the waters of which run into the Caribbean Sea.

Notable among these rivers, though not the longest, is the San Juan, which has a total length of 140 miles, and is considered by many to be the most important stream in Central America, inasmuch as it joins the great lake system of Nicaragua with the Atlantic Ocean, and by means of it communication is established with the important cities in that region as well as with the capital itself. A regular steamship service is maintained on the San Juan River between San Juan del Norte, at its mouth, and the city of Granada, on Lake Nicaragua. From Granada a railway extends to Managua, Leon, and the Pacific port of Corinto. This river receives many large and small tributaries, some of which rise in Nicaragua and others in the neighboring Republic of Costa Rica, and is navigable for a distance of 120 miles. The San Juan drains a fertile and productive territory abounding in natural wealth, and may form, at some later date, the route of a second great interoceanic canal to connect the Atlantic with the Pacific Ocean.

The longest river is the Coco, or Segovia River, which rises on the eastern crests of the cordillera and courses through mountain passes, undulating plains, and picturesque valleys for a distance of 300 miles before emptying into the Caribbean Sea. It is navigable for some 240 miles, the last 110 miles for light-draft vessels only. No other river in Latin America has such a diversity of names as has the Coco or Segovia River. The first 50 miles of this stream is known as the Somoro River, after which it takes the names of Cabrugal or Cad-rullal, Coco or Cocos, Yoro or Yare, Portillo, Liso, Tabacac, Encuentro, Pantasma, Segovia, Gracias or Cape River, Hervias River, and at its very mouth the English have called it Wanks or Yankes River.

Another stream of considerable importance and of a length of 230 miles is the Grande or Matagalpa River, called at its mouth "Barra del Desastre" (Bar of Disaster), a name given it by COLUMBUS, who, it is said, on disembarking there lost a boat and some men in its turbulent waters. The Mico is also an important river. At its source this stream is called the Mico River, but afterwards takes the name of Bluefields River, by which designation it is known throughout the principal part of its course. The latter name is supposed to have been given to it because of the connection of the Dutch pirate, BLIEVELDT, with this stream.

The Rama is navigable for some 40 miles, as far as the city of Rama, while the Rio Grande, although one of the largest streams, is navigable only partially, owing to its rapids, which make navigation dangerous and difficult.

Lake Nicaragua has an extension of 96 by 40 miles, is navigable throughout for large vessels, and contains a number of islands, of which the island of Ometepe, 12 miles in length, is the largest. It is one of the prettiest and most picturesque lakes of America and the largest in Central America.

Lake Managua, situated but a short distance from Lake Nicaragua, with which it is connected by the Tipitapa River, is 38 miles long and from 10 to 16 miles wide, it being likewise navigable. The capital of the Republic, Managua, as well as a number of smaller towns, are situated on its shores.

MEANS OF APPROACH.

With a coast line of nearly 300 miles on the Caribbean Sea and of 200 miles on the Pacific Ocean, Nicaragua has been favored by nature with a number of excellent bays and ports, affording ample facilities for handling the products of export and import. On the Atlantic side the principal ports are Gracias á Dios, Bluefields, and San Juan del Norte, or Greytown, while on the Pacific side are Corinto and San Juan del Sur.

The Atlantic ports can be reached by steamers from New York, New Orleans, and Mobile. The Pacific ports can be reached from San Francisco and Panama by a regular service on the west coast. The time employed by steamers between San Francisco and Corinto or San Juan del Sur is about twenty days.

A new line of German steamers has been established to ply between Vancouver, British Columbia, and Corinto, Nicaragua, touching at Victoria, British Columbia, Tacoma and Seattle, Wash., San Francisco, and the principal Central American ports of the Pacific coast.

Between Nicaragua and Costa Rica the mails are conveyed and commerce is conducted over well-established highways. Between Nicaragua and Honduras several trails are open, but the usual means of communication is by sea.

POSTS AND TELEGRAPHS.

Nicaragua is a member of the International Postal Union. There are about 135 post-offices in operation in the Republic. A money-order system is in operation in all of the principal towns of the Republic.

The exchange of the ratifications of the parcel-post convention, approved by the Mexican Senate on October 23, 1907, and ratified by President DIAZ on April 23, 1909, and by the Congress of Nicaragua on February 6, 1908, and approved by the President of Nicaragua on June 16 of the same year, was made in Mexico on July 27, 1909, by the authorized representatives of the two countries.

According to information furnished by the Director-General of Statistics to the United States Consul at Managua, the total telegraph wire mileage of Nicaragua is 3,637 miles and the total number of offices 130; telephone wire mileage 805 miles and the total number of telephone stations 29.

The United States Government has installed a wireless-telegraph station, with a range of over 500 miles, at Swan Island, off the coast of Nicaragua, and the United Fruit Company has active stations at Bluefields and Rama, which are both of high efficiency.

EDUCATION AND GENERAL INFORMATION.

Education is a national institution under the Secretary of Foreign Affairs and Public Instruction. For the latest year in which trustworthy statistics are available there were something over 125,000 individuals of school age—that is, about 20 per cent of the population—352 primary schools for both sexes, supported by the Government. Besides the superintendents, one for each school, there were 391 teachers in the various departments. These, with others, forming a teaching force, were paid from the government treasury some-

thing more than 72,000 pesos per month. As a matter of fact, only 12½ per cent of the pupils of school age actually received instruction, although the Government was making every effort at the time to stimulate the desire for education.

There were 4 schools of higher education, 3 being for young men and 1 for young women, and for instruction in the professional branches there were 3 faculties of law and 1 of medicine. But it has not been thought best as yet to give them the formal titles of universities. Nicaragua has agreements with the other Republics of Central America by which she extends to and receives from them the courtesy of an interchange of professional privileges and emoluments, so that a graduate of an institution in any of these countries is permitted to practice his profession in all the others. The Government has also maintained 12 honor students in foreign universities, 6 of them having been at one time in the United States.

Nicaragua has an international sanitary agreement with Guatemala, Mexico, Peru, the Dominican Republic, Venezuela, United States, Cuba, Costa Rica, and Chile, the object of which is to prevent the introduction and spread in the Republic of yellow fever, bubonic plague, and cholera. The Republic has no sanitary code, but there are sanitary laws and regulations governing railways, street cars, hearses, barber shops, the disposal of the remains of dead animals, and the construction works on private property. The department in which the capital is situated and the city of Managua have special sanitary laws. The municipal government of Managua appoints a board of health, which has charge of the sanitation of the city. At the present time a large ditch or canal is being constructed for the purpose of carrying off the surplus water which runs down from the mountains in the rainy season and at times partially inundates the city, causing a loss of life and property. This ditch crosses Managua from north to south and empties into the lake. The city of Managua has taken steps to erect a plant for burning waste and garbage, and the other principal cities of the Republic dispose, or will dispose, of their garbage in the same manner.



PANAMA

GEOGRAPHICAL SKETCH.

The Isthmus of Panama, which comprises the Republic of Panama and the Canal Zone, forms the connecting link between Central and South America. It is bounded on the north by Costa Rica and on the south by Colombia.

It has an area of 32,380 square miles, nearly equal to that of the State of Maine, and a population of 361,000, or 11.1 per square mile.

Two mountain chains traverse the territory of the Republic, inclosing a number of valleys and plains which afford excellent pasturage for cattle and in which all the products of the Tropical Zone are raised. The slopes of the mountains are covered with extensive forests.

Among the products for export, bananas, cacao, indigo, tobacco, sugar cane, india rubber, vegetable ivory, turtle shells, pearls, and mahogany are the most important.

Gold, as well as other minerals, is found in the country and a number of mining concessions have recently been granted.

HISTORICAL SKETCH.

RODRIGO DE BASTIDA is said to have first discovered the coast of Panama, but it was left for COLUMBUS to explore the country and attempt a settlement. On November 2, 1502, he entered the harbor of what is now Portobelo and planted a colony. The Indians, unlike those of most other American localities, opposed the invaders, destroyed COLUMBUS's settlement, and forced his men to take to their ships. Other settlements which from time to time were attempted fared no better, and it was not until 1510, when DIEGO DE NICUESA was appointed Governor of the Province of Castilla del Oro, extending from the Gulf of Darien to Cape Gracias a Dios, that the Spaniards succeeded in firmly establishing themselves on the Isthmus at Nombre de Dios. ENCISO, who succeeded NICUESA, shortly afterwards founded Santa Maria la Antigua del Darien, which was to be the basis of operations for many years to come. Subsequently, VASCO NUÑEZ DE BALBOA crossed the Isthmus of Panama after a journey of twenty-six days and discovered the Pacific Ocean on September 26, 1513. He claimed possession in the name of the King of Spain of the ocean and all the lands washed by it.

Don PEDRO ARIAS DAVILA, popularly called PEDRARIAS, became Governor of Castilla del Oro in 1514, and in the year 1518 founded the city of Panama.

Panama and Darien became the treasure ports from which all the gold of Peru was shipped to Spain. This naturally attracted the numerous buccaneers who at that time infested the waters of the West Indies, and both of these cities were many times attacked during the sixteenth and seventeenth centuries. Among these the most formidable was HENRY MORGAN, who in the year 1671 captured the city of Panama and completely destroyed it. It was refounded, however, on January 21, 1673, by the then Governor DON FERNANDEZ DE CORDOVA Y MENDOZA, some 6 miles distant from the old site.

WILLIAM PATTERSON, a Scotchman, also attempted a settlement on the Isthmus, having been granted letters patent from the Scotch Parliament. On November 2, 1689, he landed at a place near what is now known as Puerto Escosez with 1,200 settlers. The colony did not prove successful, and in the year 1700 the Spanish authorities drove out the settlers.

In 1718 the viceroyalty of New Granada was created, Panama being incorporated therewith.

On November 28, 1821, Panama declared her independence of Spain, and, owing to the fact that the Spanish military governor, DON JOSÉ DE FABREGA, was in sympathy with the revolutionary movement, independence was secured without bloodshed, Panama becoming a State of the Republic of Colombia.

Movements for independence were at different times initiated, but it was not until the year 1903 that the independent Republic of Panama was born. On November 3 of that year the people of the city of Panama declared themselves free from Colombia. This revolution, like the first, was bloodless, and thus the youngest Republic presents the unique spectacle of having accomplished both her independence from Spain and her secession from Colombia peaceably.

According to the treaty signed between the Republic of Panama and the United States of America on November 18, 1903, the latter country acquired the necessary land to build a ship canal from ocean to ocean, and a strip of land 5 miles on each side of the center line of the route of the canal to be constructed. The proposed canal is to be 50 miles in length and extends from Cristobal to Balboa, about 3 miles from the city of Panama. The United States of America also acquired possession of the small islands of Perico, Naos, Culebra, and Flamenco, in the Bay of Panama.

On February 13, 1904, the constitution of Panama was promulgated, and on February 20, 1904, MANUEL AMADOR GUERRERO was inaugurated as first President of the Republic. JOSÉ DOMINGO DE OBALDIA was elected to succeed him in 1908, but died on March 1, 1910, and was succeeded by Dr. CARLOS ANTONIO MENDOZA, the Second Designado, the First Designado having died the previous year.

CONSTITUTION AND GOVERNMENT.

Under the constitution the legislative power is vested in the National Assembly, composed of one chamber with 28 members. Deputies are elected by direct vote for a term of four years in the proportion of one for every 10,000 inhabitants or fraction over 5,000.

The President is likewise elected for a term of four years by popular vote, every citizen over 21 years of age being entitled to suffrage. He may not be reelected for the term immediately following his own. There is no Vice-President, but the assembly appoints three *designados* every two years, the first *designado* taking the place of the President in the event of his absence or disability. The Cabinet is composed as follows: Secretary of Foreign Affairs, Secretary of Government and Justice, Secretary of the Treasury, Secretary of Fomento, Secretary of Public Instruction. The salary of the President is \$18,000 per annum.

There is a supreme court of five judges appointed by the President for a term of four years, a superior court, several circuit courts, and a number of municipal courts. The judges of the superior and circuit courts are appointed by the supreme court for four years and the municipal judges by the judges of the circuit courts for a term of one year.

INTERIOR GOVERNMENT.

Panama is politically divided into seven Provinces, which are again subdivided into municipalities, the former being administered by a Governor, appointed by the President of the Republic for a term of one year, while the latter are governed by a municipal council, elected by direct vote for a term of two years, and an *alcalde*, or mayor, appointed by the Governor of the Province for a term of one year.

The Provinces and their capitals are:

Province of—	Capital.
Panama.....	Panama. ^a
Colon.....	Colon.
Cocle.....	Penonomé.
Los Santos.....	Los Santos.
Veraguas.....	Santiago.
Chiriqui.....	David.
Bocas del Toro.....	Bocas del Toro.

The city of Panama has a population of about 40,000 and Colon of about 15,000. David, in the northern part, contains 12,000 inhabitants, and Bocas del Toro, on the Atlantic, 10,000.

^a Also the capital of the Republic.

ARMY AND NAVY.

The exceptional circumstances under which Panama took her place among the coterie of nations permitted the Republic to abolish the permanent army and thus avoid an expense which is at present unnecessary. The place of a regular army is taken in Panama by an efficiently organized and well disciplined National Police Corps numbering, in 1909, 1,008 officers and men. These forces are scattered in small detachments throughout the Republic. The police corps is under the direction of officers holding the rank of commandants, one of whom resides in Panama and the other in Colon. The armament of the corps includes a good supply of field artillery and machine guns. The navy consists of two armored gunboats and two auxiliary vessels of war.

PANAMA IN 1909.

The distinction between the Republic of Panama and the Canal Zone must be borne in mind, because the following statements are applicable, as a whole, to the Republic.

The Government showed during the year a commendable ambition to foster all conditions which would lead to its material and intellectual progress. Perhaps the most noticeable project was the decision on the part of the Government to build a railroad on the west slope of the Cordilleras, between the Canal Zone and the city of David, in the Province of Chiriqui, 274 miles west of the city of Panama. A survey for this line has already been commenced, appropriations have been made for its construction, and during 1910 decided progress will be reported. Significant, also, of the opening up of the country is the survey recently completed from the proposed western terminus of this railway to Bocas del Toro, along which a cart road will ultimately be built.

In its finances the Government restricted expenditures so as to balance its revenue. In its commercial relations the total trade of the year exceeded that of 1908, but the imports ran ahead of the exports to a considerable extent. A noticeable increase in exports is found in the item of rubber, which went from \$26,000 in 1907 to \$121,000 in 1909. Cocobolo wood and ivory nuts also showed an increase in exports, the amount of the latter shipped in 1909 being more than 100 per cent in excess of the preceding year.

Immigration has begun to be attracted toward the Republic, but great care is being exercised through land and colonization laws to prevent the misfortunes which have at times attended the unrestricted exploitation of the land in other parts of the Americas.

FINANCE.

The budget for the years 1909 and 1910, as voted by the legislature, estimated the revenues at \$5,050,305.15 for the two years. The actual receipts for the year 1909 amounted to \$2,973,292.07. The expenditures of the Government for the two years as authorized by the legislative budget amounted to \$6,877,469.65. However, the President, under a general authority of the law, subsequently reduced the authorized expenditures from this sum to \$5,050,305.15, the amount of the estimated revenues. The exact figures of the expenditures for the year 1909 are not yet available, but are said to be well within the amount of the receipts.

For the first six months of 1909 the items of receipts were as follows:

Collection offices.....	\$1, 179, 843. 09
Consular fees.....	55, 310. 65
Posts and telegraphs.....	44, 571. 59
From interest on money invested in the United States.....	159, 199. 15
Interest from the Banco Hipotecario y Prendario.....	7, 290. 78
Total.....	1, 446, 215. 26

COMMERCE.

The total foreign trade of Panama for the year 1909 was \$10,258,-782.35, of which \$8,756,307.64 were imports and \$1,502,474.71 were exports. For the year 1908 the figures were: Imports, \$7,806,811.86, and exports, \$1,827,050.28, or a total of \$9,633,862.14.

The imports by countries for the two years were as follows:

Country.	Value.		Percent- age, 1909.
	1908.	• 1909.	
United States.....	\$4, 459, 777. 80	\$4, 996, 626. 63	57. 06
Great Britain.....	1, 553, 552. 52	1, 762, 411. 33	20. 12
Germany.....	793, 583. 16	914, 756. 41	10. 45
France.....	385, 868. 43	297, 352. 22	3. 40
Italy.....	154, 002. 08	210, 426. 37	2. 40
China and Japan.....	123, 951. 69	180, 245. 52	2. 00
Spanish America.....	172, 881. 94	152, 345. 38	1. 87
Spain.....	80, 639. 52	133, 823. 84	1. 50
Belgium.....	77, 554. 69	108, 319. 94	1. 20
Total.....	7, 806, 811. 86	8, 756, 307. 64	

For the year 1909 the imports from the Spanish-American countries forming the above total, were: Salvador, \$75,168.02; Chile, \$41,-727.49; Ecuador, \$30,979.17; Colombia, \$1,955.60; Peru, \$1,668.70; and Costa Rica, \$846.40.

The imports, by major classifications, were:

	1908.	1909.
Vegetable products.....	\$1,879,297.42	\$2,251,767.22
Textiles.....	1,178,802.38	1,712,828.82
Animal products.....	1,258,900.77	1,510,822.16
Mineral products.....	808,775.50	943,398.10
Liquors.....	675,703.20	649,690.76
Chemical products.....	350,161.94	384,243.73
Machinery.....	229,836.72	228,174.53
Paper and manufactures of.....	74,671.30	125,487.82
Vehicles.....	54,946.45	56,252.37
Arms and explosives.....	39,744.56	45,192.61
Miscellaneous.....	1,255,971.62	848,449.52
Total.....	7,806,811.86	8,756,307.64

The statistics of the imports for 1909 from the three leading countries, by articles, were:

Classification.	United States.	Great Britain.	Germany.
Animal products.....	\$1,044,883.74	\$168,057.18	\$164,501.54
Vegetable products.....	1,424,347.01	235,123.37	272,857.81
Mineral products.....	686,315.82	112,639.02	60,384.50
Textiles.....	577,742.19	807,593.03	136,709.97
Chemical and pharmaceutical products.....	209,484.24	76,314.17	60,235.10
Liquors, spirituous and fermented.....	305,844.69	87,814.91	56,409.45
Paper and manufactures of.....	74,281.82	10,788.29	24,566.46
Machinery and apparatus.....	170,890.00	28,683.03	21,854.19
Vehicles.....	45,110.63	9,400.72	31.20
Arms and explosives.....	26,867.84	7,745.13	3,799.84
Miscellaneous.....	430,858.65	218,251.98	113,406.25
Total.....	4,996,626.63	1,762,410.83	914,756.31

The principal imports from France were liquors, \$127,389.47, and chemicals, \$28,808.70. From Italy the principal imports were textiles, \$71,828.22, and vegetable products, \$32,850.54. Animal products valued at \$34,306.98 were imported from Belgium, and vegetable products valued at \$41,632.49 were imported from Spain. Spain also sent \$29,261.41 worth of liquors. From China and Japan the principal import was textiles, \$63,217.07. There were imported from the Spanish American Republics vegetable products to an amount of \$141,234.25.

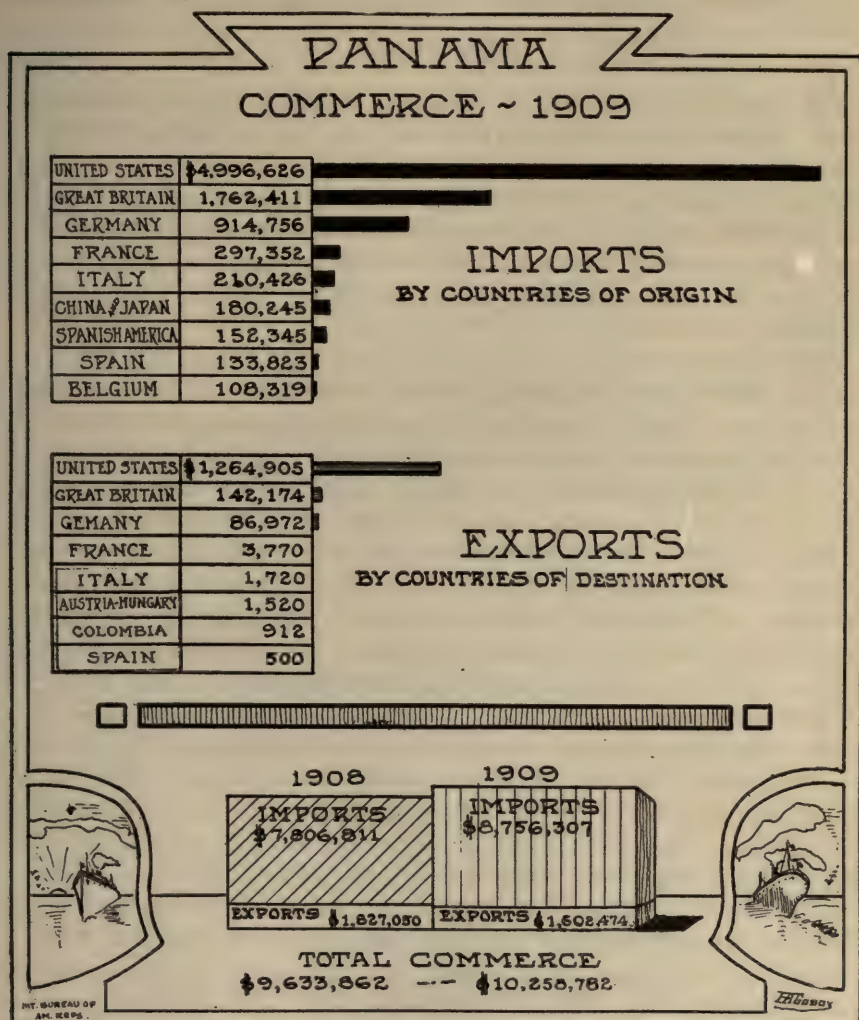
The exports, by countries, for the year 1909 were as follows:

United States.....	\$1,264,905.70
Great Britain.....	142,174.36
Germany.....	86,972.35
France.....	3,770.00
Italy.....	1,720.00
Austria-Hungary.....	1,520.30
Spanish America.....	912.00
Spain.....	500.00
Total.....	1,502,474.71

For the preceding year, the exports to the United States were \$1,653,741.44; to Great Britain, \$112,412.71; to Germany, \$37,885.35;

to France, \$12,264.50; to Spanish America, \$8,413.28; and Austria-Hungary, \$2,333.00.

The value of the exports divided among the three ports of the Republic was, for Bocas del Toro, \$897,324; for Colon, \$515,873.71; and for Portobello, \$89,277.



The exports to the United States consisted of the following: Bananas, \$853,418.56; rubber, \$109,820.75; cocoanuts, \$97,583.18; ivory nuts, \$74,617.85; hides, \$65,908.39; hard wood, \$24,497; skins, \$16,449.77; sarsaparilla, \$440; ipecac, \$314.50; mother-of-pearl, \$115; and miscellaneous, \$28,730.70.

The principal export to Great Britain was gold, about \$85,000; to Germany, ivory nuts and mother-of-pearl, together worth about \$50,000. To France the principal export was furniture woods. The only export to Austria-Hungary was mother-of-pearl. To Colombia the principal export was hides. The only export to Spain was hides. The only articles exported to Italy were ivory nuts and mother-of-pearl.

INDUSTRIES.

The soil of the Republic is of marked fertility, and climatic conditions induce a luxuriant growth of tropical vegetation. Only a small part of the area of the Republic is under cultivation, although the Government, alive to the importance of agriculture as a factor in the development of the resources of the country, is interesting itself in promoting the cultivation of coffee, cacao, cocoanuts, rubber, vanilla, and sugar cane, all of which articles are exempt from taxation.

The cultivation of bananas is the principal industry, and the acreage devoted to the production of this fruit shows a steady increase from year to year. Attention is also being given to the cultivation of other products. Cacao is at present grown only on a small scale, the export value reaching only about \$6,000, while rubber, which is now produced on a scale similar to cacao, could easily be developed into an extensive and profitable industry. It grows wild in the interior of the Bocas del Toro district, where it is gathered by Indians and brought to Bocas del Toro for shipment. Sarsaparilla is not cultivated, but grows wild in great abundance, and coffee is grown in the Province of Chiriqui, near the Costa Rican frontier. In the Province of Cocle, on the Atlantic coast, an agricultural enterprise has undertaken the cultivation of cacao, coffee, and rubber, and returns are already being received. Sugar cane is grown to some extent and is wild in many parts of the country, and could be cultivated to advantage. The Government has recently made a contract providing for the erection of a sugar mill on the public lands of the Republic and the establishment of a sugar refinery to be operated in conjunction with the same. Another refinery at the capital, with a capacity of 500 tons, or an output of 1,000 bags of 100 pounds of refined sugar daily, has been contracted for. This refinery is to be exempt from national and municipal taxes on the sugar produced, in addition to which the Government agrees to admit free of duty all requisite material, machinery, and implements to be used in construction. The concession carries with it a large grant of land and provides for a gradual increase of the acreage planted on a progressive scale.

It is said there is no region of the world where sugar can be produced at less expense than in Panama, where the cane fields yield

40 tons of cane per acre, with a sugar extraction of $11\frac{1}{2}$ per cent, as compared with a production in Cuba of 21 tons to the acre and an extraction of 9.7 per cent. Java averages 34 tons per acre; and in the United States, where a liberal use of fertilizer is made, about 11 tons per acre is produced, with the necessity in the latter country of planting the crop every year, while in Panama the cane grows continuously for a period of fifteen years without replanting.

The Department of Fomento of Panama is preparing to make a systematic study of the agricultural possibilities of the different Provinces of the Republic. The results of these studies will be published in pamphlet form and distributed throughout the farming districts. The Provinces of Chiriqui and Veraguas have already been examined by competent agricultural authorities and reported as economically suited to the production of such staples as sugar, tobacco, rubber, corn, rice, wheat, and vegetables.

Panama offers exceptional possibilities for colonization, and colonists can sublease small farms of 10 to 100 acres on exceedingly advantageous terms, and with exceptional prospects of reaping a large profit from the proper cultivation and development of the same.

The forests of the Republic contain an abundance of cabinet, dye, and building woods which, under proper development, could be made a profitable field of enterprise.

The stock-raising industry is also being encouraged by the importation, free of duty, of blooded animals for breeding purposes from the United States, England, and Jamaica. Statistics place the live stock in the Republic at 114,500 head, in the following distribution: Cattle, 50,000; horses and mules, 12,000.

In mining the Republic is being extensively prospected. Many of the rivers and points near the seashore contain gold in small quantities, while some of the deposits in the interior might be profitably worked. Gold bullion is steadily shipped from mining properties near Darien.

Deposits of coal, copper, silver, lead, aluminum, iron, and asbestos have been located in the interior of the Republic.

Coral and sponges are found off both the Atlantic and Pacific coasts.

RAILWAYS AND INTERIOR WATERWAYS.

The railroad across the Isthmus between Colon and Panama, 48 miles in length, is the most important transportation route of the Republic. There is, besides this, a system developed in the territory adjacent to Bocas del Toro principally for the banana industry, but carrying also publicly both freight and passengers, which extends 29 miles between Almirante and Victoria.

The Government of Panama has contracted with the Panama Railroad Company to survey a railway from the city of Panama to

David, the capital of the Province of Chiriqui. The distance is about 274 miles, and it is expected that the route surveyed by the Intercontinental Railway Commission in 1893 will be practically followed. The road will traverse a rich district and will be an important factor in the development of a large and fertile section of the Republic. It will form a link in the great Pan-American road that will ultimately be built into the heart of South America, and which at some time in the future will enable a traveler to go by rail from New York to Buenos Aires, and to nearly all the capitals of the three Americas. The cost of constructing this road was estimated in 1903 at \$4,657,280.

The contract calls for a standard-gauge railway from the city of Panama to the city of David, connecting with the Panama Railroad at Empire in the Canal Zone, and reaching Chorrera, Penonome, Nata, Agua Dulce, and Santiago in the Republic of Panama, with a branch line from or near Santa Maria to the town of Pedasi in the



Province of Los Santos, and a branch from the foot of the divide or cordillera to Anton in the Province of Coclé. The Government of Panama will advance the money to the Panama Railroad Company with which to begin, carry on, and complete the work. The railroad company will render monthly statements to the Government showing how the money advanced is expended, and the books of the railroad company are subject to investigation at any time by the authorized representative of the Government of Panama.

In the employment of labor the railroad company agrees to give preference to Panamanians when practicable and consistent with efficient service. The contract, which was submitted to the President of the Republic for approval, was signed on March 30, 1910, by the Secretary of Foreign Affairs of the Republic, in representation of Panama, and by the Superintendent of the Panama Railroad for the company. The first installment of \$25,000 has been paid to the railroad company by the Panama Government.

Several of the rivers of Panama might afford navigation facilities were it not that owing to tropical rains they are apt to rise suddenly, rendering transport difficult and dangerous. The Tuyra is navigable for small vessels for about 100 miles; the Bayamo, the Cocle, Calebobra, Tarire, and Los Indios are all navigable for small craft from 20 to 75 miles. The Chagres is now practically absorbed by the Canal.

MEANS OF APPROACH.

The favorable position of the Republic of Panama, located midway between the two continents, places it within easy reach not only of North and South, as well as Central, America, but also of Europe, and numerous steamship lines on both the Atlantic and Pacific oceans maintain a regular service with the ports of the Republic.

A number of bays and ports furnish harbor facilities for coastwise vessels, those on the Caribbean Sea being Colon, Bocas del Toro, Chagres, Portobelo, Bastimentos, Nombre de Dios, Palenque, and Escribanos, and on the Pacific side, Panama, Pedregal, Puerto Mutis, Chitre, Mensabe, Puerto Posada, San Carlos, Aguadulce, and Real de Santa Maria.

The city of Colon is but 1,382 miles distant from New Orleans, and 1,972 miles from New York, while Panama is 3,277 miles distant from San Francisco. Colon is in regular communication with most of the ports of the United States, the West Indies, and Europe. The city of Panama is reached by steamers touching at points on the Pacific coast northward as far as Victoria, British Columbia, and southward as far as Punta Arenas.

There is practically no communication between Panama and Colombia except by sea. With Costa Rica there has always been along the west coast a well-known trail by which communication was maintained between the two Republics. On the east coast the railway from Limon in Costa Rica has been extended to within 24 miles of the frontier, and from Bocas del Toro there is about the same distance still unsupplied with railways. It is expected that this gap will be closed in the not distant future.

Consul-General SNYDER, at Panama, reports that the number of foreign vessels entered and cleared at Balboa, Canal Zone (the Pacific outlet of the canal about 3 miles from the city of Panama), during the year 1909 was 214, representing a total cargo tonnage of 361,847. Of these 214 ships, 101 were British, 74 American, 26 Chilean, 3 Norwegian, and 10 German. The total number of steamers entering the older port of Panama during 1909 was 268, with a tonnage of 41,332, and of sailing vessels, 578, with 16,894 tons burden; clearances reported being 271 with 41,998 tons, and 588 with 59,403, for the two classes of vessels, respectively. This does not include Balboa, the port of entry for ocean-going steamships. No ocean-going vessels enter the port of Panama.

Consul KELLOGG, at Colon, reports that the number of steamers entering the port of Colon during 1909 were as follows: Four American, of 22,776 tons; 169 British, of 519,571 tons; 132 German, of 335,202 tons; 81 Norwegian, of 148,387 tons; 23 French, of 62,890 tons; 12 Italian, of 33,628 tons; and 12 Spanish, of 37,023 tons. Of sailing vessels, 4 American, of 484 tons, and 2 British, of 275 tons, exclusive of small coasting vessels, entered that port.

United States Consular Agent OSTERHOUT, at Bocas del Toro, reports that during the year 1909 there arrived in that port 231 steamers of the following nationalities and tonnage: British, 57, tonnage, 68,515; German, 32, tonnage 60,328; Norwegian, 142, tonnage, 116,341; total tonnage, 245,184.

POSTS AND TELEGRAPHS.

The improvement of the means for facilitating quick communication and intercourse both among its own people and with the outside world has always been encouraged by the Government of Panama. The postal service of the country at the close of 1909 included 96 offices, which during the year under review handled mail aggregating 2,414,458 pieces. At the beginning of calendar year 1910 there were 32 telegraph offices in the country.

The National Congress in 1909 authorized the President to complete the double-wire telegraph line from Panama to Veraguas, to construct new lines, and extend the telephone system. Among other important contracts entered into by the Government for the improvement of its telegraph facilities was one with the Panama Railroad, which provides for the construction and maintenance of telegraph lines between the cities of Panama and Colon.

An agreement has been made with the United Fruit Company to establish wireless stations at Colon and Bocas del Toro. As there is a wireless station now at Port Limon, Costa Rica, the opening of the proposed station will complete an extensive system of wireless telegraphy in Panama and the neighboring Republics.

EDUCATION.

According to the annual report of United States Consul SNYDER, at Panama, the public school system of the Republic is divided into primary, secondary, industrial, and professional departments.

The direction and supervision of public instruction is in charge of the National Government, and is under the charge and direction of a Superintendent of Public Instruction. There is a special inspector for the capital, provincial inspectors for the Provinces, and local inspectors in the towns, villages, and districts.

In the capital there has been lately established a center of secondary public instruction, known as the National Institute, whose normal

section corresponds in its organization to that of the Normal School for males and which prepares them for a professional career. There is also a Normal School for women.

There are also primary schools for boys and girls in the country, known as "urban," if situated in the county seat of the district or township, and "rural," if in the country or small villages. For their organization and internal management, the primary schools are divided into elementary, medium, and superior sections, each in charge of 1 teacher when the attendance is more than 30, but if less, then 1 teacher is allowed for the entire school. In a school of more than 40 sections there is in addition 1 chief director having exclusive charge of the technical branch. In the last two years, in the capital, the above-mentioned schools were divided into medium and elementary sections only, the category of each of them being classified in numbers in ascending order. The schools are classified in five grades.

In the city of Panama there is a National School of Music and Declamation; one of Arts and Trades, a National Museum, and a Municipal Library. In the National Institute above mentioned the following establishments of learning have been included: The Normal School, High School for boys, business college, and college of languages. The school above referred to includes three courses of studies, as follows: The elementary course (common school and elementary course), the inferior term, and the superior term. The elementary term embraces six years of study, the inferior term three years, and the superior term two. The superior term comprises four sections, as follows: Section of humanities, normal section, commercial section, and technical section.

The executive power is legally authorized to establish in the capitals of the Provinces a school for the manufacture of hats, high schools for both sexes, a school of practical agriculture, and kindergartens. The State also bears the expense of the professional education of 62 students (47 boys and 15 girls) in the colleges of the United States and Europe.

The Panaman Government has recently secured permission from the United States to establish at different places in the Canal Zone, which may be agreeable to the United States, schools for both sexes of Panamanians. These schools are to be taught by natives and the expenses paid from the National Treasury.

In all the colleges and official schools of the capital and those of the cities of Colon, Bocas del Toro, and David the English language forms a part of the course of instruction, and progress in this respect up to the present time is very marked.

Books are distributed to the pupils without any other obligation on their part than that of preserving them in a perfect state and keeping

them clean. The Government is under no legal obligation to furnish books or other materials of instruction to private schools or colleges. It may do so, however, in special cases as an assistance to said establishments.

There are established in the capital of the Republic various private schools and colleges, of which some receive appropriations from the Government in exchange for a certain number of scholarships, so that poor children may receive instruction therein. These institutions, on account of having received the above-mentioned subvention, are under the same management as official institutions of the same character.

At the end of the scholastic year 1909-10, there were in the Republic 242 official schools and colleges, with a total attendance of 14,305 pupils. The teachers employed numbered 396.

GENERAL INFORMATION.

During 1909 the Government was engaged in the construction of a road from the end of the Sabana road, built by the Canal Commission, toward Chepo, a distance of some 35 miles. The road is of the same class as the Sabana road, and a steel bridge will be placed over the Juan Diaz River within a short time. Two years will probably be required to complete the work as contemplated.

The town of Anton is located in the Province of Cocle, 7 miles from Port Obaldia. During the year a force has been engaged in constructing a first-class highway between these points. Concrete culverts and reenforced concrete bridges have been placed where necessary, with standard drainage ditches on both sides of the road. On the first of this year this road was about half completed.

At Aguadulce, Province of Cocle, a concrete dock of convenient size is under construction. Between Aguadulce and Santiago de Veraguas over the river Conaca a contract has been let for the construction of an iron bridge with a 132-foot span. At Pedregal, the port for David, Province of Chiriqui, a concrete dock is in course of construction.

In September the Chief Engineer of the Republic headed a party which left the Boquete to survey a route for a road to connect with Bocas del Toro, in the Province of the same name. The distance is some 55 miles, about 40 of which were located. The work will be completed during the present year. This road, next to the construction of the Panama-David Railroad, is the most important work under the Department of Public Works.

The "Gaceta Oficial" of February 3, 1910, published the full text of an important contract entered into between the Government of Panama and Mr. F. H. AROSEMENA. The latter agrees to erect the buildings which are to constitute the new National Institute in

accordance with the plans and specifications laid down in the contract. The cost of the construction of the 5 buildings, together with the grounds attached thereto, is estimated at about \$700,000. The main buildings will have a length of about 263 feet, and, like all the others, will be built of stone and concrete, with a white plaster finish.

Its façade will be Italian renaissance. This central building will provide a hall for public functions, an amphitheater, and a gymnasium. The other buildings to be erected provide for a laboratory, museum, dormitory for 200 students, administrative offices, and a large swimming pool.

The Congress of Panama has appropriated \$800,000 for sanitary improvements in the cities of Panama and Colon, the greater part of which will be expended in Colon, at which place extensive improvements are planned, covering an area of 20 city blocks and a considerable portion of the outlying district. The Panama Railroad also proposes to fill in and improve in Colon a territory of considerable extent. The sewer system is to be extended, and a number of alleys are to be paved with concrete blocks, the sum to be expended in improvements aggregating \$1,061,271.19, of which \$530,719.34 will be borne by the Government, \$306,581.75 by the Panama Railway Company, and \$223,970.10 by the property owners. The filling in will be done hydraulically by pumping coral sand from the bottom of the bay and carrying it in pipes to the sections to be filled up. An 18-inch suction dredge will be used for this purpose.

The work of improving certain sections of the city of Panama, to bring them up to the standard of sanitary excellence prescribed by the Department of Health, was begun on December 6, 1909. It included the laying of water and sewer pipes, together with the grading, curbing, and macadamizing of the principal streets in the different suburbs of the city.



PARAGUAY

GEOGRAPHICAL SKETCH.

The Republic of Paraguay, one of the two inland countries of South America, is situated between latitude $22^{\circ} 4'$ and $27^{\circ} 30'$ south and longitude $54^{\circ} 32'$ and $61^{\circ} 20'$ west of Greenwich, and is bounded by the Republics of Bolivia, Brazil, and Argentina.

Paraguay has an area of 196,000 square miles, equal to that of the States of California and Maine, and had a population on December 31, 1908, of 715,841.

With a subtropical climate considerably modified and made healthful by several mountain chains and an extensive hydrographic system, most of the products of the tropical and temperate zones are successfully cultivated. The extensive plain of the Gran Chaco affords excellent pasturage for cattle, and the slopes of the mountains of the country are covered with luxuriant forests, where many useful woods and medicinal plants are to be found.

The valuable quebracho wood, used extensively for tanning and also as railway ties, and maté, or Paraguay tea (the leaves of the *Ilex paraguayensis*), are the most important articles of export, the latter going mostly to the other South American Republics, where it is a popular beverage. Lapacho, curupaz, and cedar are valuable woods found in considerable quantities, while oranges, tobacco, coffee, rice, cotton, manioc, and sugar are exported.

HISTORICAL SKETCH.

The country now comprising the Republic of Paraguay was first discovered by SEBASTIAN CABOT, who, in the year 1526-27, explored the upper Parana and Paraguay rivers and the adjacent country. He was followed by JUAN DE AYOLAS and DOMINGO IRLA, who, on August 15, 1536, founded a settlement on the present site of Asuncion, the capital of the Republic.

Subsequently ALVARO NUÑEZ CABEZA DE VACA, famous for his explorations in North America, was appointed Governor of the Province of Paraguay, which at that time comprised all of the country drained by the La Plata, and disembarking in the year 1542 at Santa Catharina in Brazil, proceeded overland to his destination. He reached Asuncion after a journey of one hundred and thirty days, having traversed more than 1,000 miles of hitherto unexplored and practically unknown territory.

DON HERNANDO ARIAS DE SAAVEDRA became Governor in 1591, and at his invitation the Jesuit missionaries came to Paraguay, arriving

in 1608. They treated the Indians kindly, and by founding schools and missions soon gathered thousands of the aborigines around them, forming practically an independent State which thrived for many years. Their power was finally broken in the year 1769, when the King issued a decree expelling all Jesuits from the Spanish colonies in America.

Paraguay was then nominally under the jurisdiction of the Viceroy of Peru, but in 1776 the viceroyalty of La Plata Province was created, including Paraguay.

When, in the year 1810, the Argentine Republic declared its independence from Spain it was the intention to include in the United Provinces of the Rio de la Plata all of the country which had formerly been under the jurisdiction of the viceroyalty of that name. The inhabitants of Paraguay, however, desired to establish an independent Republic and defeated the Argentine army sent against them, declaring their independence on August 14, 1811. The Spanish Governor VELASCO was in sympathy with the movement and was elected a member of the provisional *Junta* or Governing Board. A constituent congress, which met on October 1, 1813, adopted a national flag and vested the administrative power in two consuls, Don JOSÉ GASPAR RODRIGUEZ FRANCIA and Don FULGENCIO YERGES. In 1844 the form of government was changed, the executive power being vested in a President, elected for a term of ten years. Don CARLOS ANTONIO LOPEZ was the first President and upon the completion of his term was reelected. He died on September 10, 1862, before completing his second term, and was succeeded by his son, Don FRANCISCO SOLANO LOPEZ. The latter involved the country in a disastrous war with Brazil, the Argentine Republic, and Uruguay, which lasted for five years and terminated only upon the death of LOPEZ, on March 1, 1870.

A committee of 21 then undertook to reorganize the country. It negotiated a treaty of peace with the allied powers, which was signed on June 20, 1870. A congress of representatives of the people was convened which, on November 25, 1870, proclaimed a new constitution abrogating some of the powers of the President, and completely reorganizing the Government. A triumvirate composed of Don CIRILO ANTONIO RIVAROLA, Don CARLOS LOIZAGA, and Don JOSÉ DIAZ BEDOY was intrusted with the enforcement of these measures, and in the following year Don JOSÉ SALVADOR JOVELLANOS was elected President and was inaugurated December 18, 1871. Under his wise administration and those of his successors Paraguay has gradually taken its place among the nations of America.

CONSTITUTION AND GOVERNMENT.

The constitution of Paraguay provides for a republican form of government, with the usual division of legislative, executive, and judicial authority.

The National Congress is composed of the Senate and the Chamber of Deputies, both elected by direct, popular vote, all citizens over 18 years of age being entitled to vote. Senators are elected for a term of six years, in the proportion of 1 for every 12,000 inhabitants or fraction exceeding 8,000. The Senate is renewed by thirds every two years. Deputies are elected for a term of four years, 1 for every 6,000 inhabitants or fraction exceeding 3,000. The Chamber of Deputies is renewed by halves every two years.

The President and Vice-President of the Republic are elected by electors chosen for that purpose, for a term of four years. The President is assisted by the following Cabinet of five Ministers or Secretaries: Minister of the Interior; Minister of the Treasury; Minister of Justice, Worship, and Public Instruction; Minister of War and Marine; Minister of Foreign Affairs. He is allowed a salary of \$7,000 per annum.

Congress is represented during recess by a Standing Committee composed of two Senators and four Deputies, which assists the President and is consulted by him on all matters pertaining to Congress.

The Judiciary includes a Superior Court, two Courts of Appeals, and a number of minor tribunals. The Superior Court is composed of three Justices, appointed by the President, with the consent of the Senate, for a term of four years.

INTERIOR GOVERNMENT.

For administrative purposes the country is divided into departments, each under a *Jefe Politico* appointed by the President for a term of four years. These departments are again divided into municipalities, governed by an *intendente* and Municipal Council elected by direct vote of the people.

For electoral purposes the country is divided into twenty-four electoral districts.

The capital of the Republic is the city of Asuncion, with a population of 52,000. Other towns of some importance are: Villa Rica, with 30,000; Concepcion, with 25,000; Encarnacion, with 8,200; and San Estanislao and Caazapa, with 7,000 inhabitants each.

ARMY AND NAVY.

The national army of Paraguay consists of about 2,600 officers and men. The army is organized into 4 battalions of infantry, 6 squadrons of cavalry, 5 batteries of field artillery, 2 machine-gun sections, and 1 battalion of coast artillery. All citizens are now liable to military service from their twentieth to thirty-fifth year.

The navy consists of war vessels and transports to the number of 5, some of which carry a full complement of guns.

PARAGUAY IN 1909.

The Republic has passed through another year of complete peace, and is recovering from the disturbances of the early part of July, 1908. The people have confidence in the present régime, and are prepared for a development of industrial activity. A proof of the progress which is being made in the Republic is the fact that the railway which runs from Asuncion, the capital, 155 miles in a south-easterly direction, will soon be extended, as actual construction is well underway, to the frontier of Argentina, where direct connection will be made with the railway into Buenos Aires. It should be noticed, also, that travel and trade have become so active that an express service, a combination of the railway north from Buenos Aires with the steamer service on the Parana and Paraguay rivers, has been established, so that the journey between the two capitals is now made very comfortably in somewhat less than two days and a half.

The Government is exerting itself to finish the buildings for various public offices, and especially to open up to the country the means of communication in the way of highways, the lack of which has been so detrimental in the past.

The foreign debt is really not very large, and the Government has punctually met all the interest upon it, paying off, at the same time, some of the items of the principal.

The balance of trade in the last reported year was against the country, the imports being of greater value than the exports. The exports have steadily increased during the last three years, and imports have relatively decreased, so that there is every prospect of reversing this balance of trade when the productive energy of the people makes itself felt.

Something over 1,000 immigrants enter the country annually. A majority of these are of the Latin race, but a goodly proportion of them are north Europeans, who are determined to enter the country and to settle under the favorable conditions granted them by the Government as free-will colonists.

FINANCE.

No budget has been presented to Congress since the year 1906. The receipts and expenditures of the country, therefore, have been conducted since upon the basis of this budget. The estimates of revenue are 2,567,000 pesos gold and 6,080,000 pesos paper. The expenditures, according to the estimate, are 389,037 pesos gold and 30,008,806 pesos paper. Since the year 1906 the gold premium has varied enormously. The average for the year 1906 was about 1,000

per cent; for the year 1909 it ran from about 1,300 to close to 1,700. Estimating the value of the paper dollar in 1909 at 7 cents and the gold peso at par, the budget estimates would be, revenues, \$2,992,600, and expenditures, \$2,489,653.

In the message of Acting President E. GONZALEZ NAVERO, transmitted to the National Congress on April 1, 1909, it is said that the total customs duties for the year 1908 amounted to 24,530,741.62 pesos paper, as against 32,124,323.28 pesos paper for the year 1907. Internal taxes, however, show a slight increase for the year. For 1907 these taxes amounted to 4,582,323 pesos paper, while for 1908 they amounted to 4,806,496 pesos paper.

The details of revenue and expenditures for the year 1908 are as follows:

REVENUE.

	Pesos gold.	Pesos paper.		Pesos gold.	Pesos paper.
Import duties.....	1,077,811		Stamped paper.....		1,668,723
Export duties.....	343,361		Succession duty.....		112,678
Wharf dues.....	120,442		Post-office.....		425,520
Wharf dues, special on yerba maté.....	49,318		Telegraph service.....		518,871
Warehouse dues.....	21,216		"Contribucion directa" (property tax).....		1,941,956
Tax on timber.....	52,329		Sundries.....		799,815
Consular fees.....	16,490		Total.....	1,771,680	6,291,026
Sundries.....	90,713				
Tax on internal consump- tion.....		823,463			

EXPENDITURES.

	Pesos gold.	Pesos paper.		Pesos gold.	Pesos paper.
Congress.....		759,759	Department of Justice, Public Worship, and Instruction.....	56,372	6,343,044
Presidency.....		231,025	Public debt, pensions, etc.	180,559	1,364,659
Department of Interior.....	66,706	6,617,158	Special laws, etc.....	86,756	1,884,092
Department of Foreign Affairs.....	78,304	606,792	Total.....	567,686	28,327,337
Department of Finance.....	16,593	2,556,967			
Department of War and Marine.....	82,346	7,963,841			

The agreement between the bondholders and the Government made in 1895, known as the White-Acedal agreement, fixed the amount of the national debt at 4,973,200 pesos gold. The Government has punctually met the interest on this debt and has redeemed of the principal, since 1900, 833,482 pesos, leaving a net balance in 1908 of 4,139,718. Of what is known as the French Bank loan of 1,000,000 pesos gold, 200,000 pesos have been paid, and 5,000,000 pesos paper have been deposited with the bank as part security on the balance. This last loan was acquired for the purpose of purchasing two small steamers and a dredging outfit.

COMMERCE.

The total foreign trade of the Republic for the year 1909, according to a message of the President transmitted to Congress on April 1, 1910, amounted to \$8,712,328, of which \$3,640,728 was imports and

PARAGUAY COMMERCE

GERMANY	\$1,192,619
ENGLAND	856,333
ARGENTINA	766,519
FRANCE	364,309
ITALY	289,719
UNITED STATES	222,763
SPAIN	210,559
BELGIUM	49,489
URUGUAY	40,981
BRAZIL	37,151
OTHER COUNTRIES	42,506

IMPORTS - 1908
(BY COUNTRIES OF ORIGIN)

ARGENTINA	\$2,000,380
GERMANY	971,799
URUGUAY	548,193
BELGIUM	182,397
FRANCE	80,905
BRAZIL	30,667
SPAIN	28,214
ITALY	15,455
BOLIVIA	1,773
UNITED STATES	1,434
OTHER COUNTRIES	5,873

EXPORTS - 1908
(BY COUNTRIES OF PROCEDURE)



TOTAL COMMERCE (1908) \$7,940,048

INT. BUREAU OF AM. REPS.

F. H. C.

\$5,071,600 was exports. For the year 1908 the figures were: Imports, \$4,072,953; exports, \$3,867,095; total, \$7,940,048. There was, therefore, an increase in exports amounting to \$1,204,505 and a decrease in imports of \$432,225, a net increase in trade amounting to \$772,280.

In his message the President says that in the years prior to 1905 the imports varied between two and a half and three and a half millions of dollars gold. In the next few years the imports increased to as much as seven and one-half millions, but in 1908 sank to about four millions. In the past year (1909) the figures for imports approach the normal.

For the year 1908 the imports and exports by countries were as follows:

Country.	Imports.	Exports.	Country.	Imports.	Exports.
Germany.....	\$1,192,619.97	\$971,799.31	Uruguay.....	\$40,981.56	\$548,193.43
Argentina.....	766,519.13	2,000,380.67	Portugal.....	5,141.92	.....
Austria-Hungary.....	8,700.01	.....	Holland.....	5,712.95	.....
Brazil.....	37,151.81	30,667.90	Switzerland.....	5,669.13	.....
Spain.....	210,559.06	28,214.50	Belgium.....	49,489.13	182,397.37
France.....	364,309.53	80,905.72	Bolivia.....	.....	1,773.36
England.....	856,333.51	.....	Other countries.....	17,282.27	5,873.10
Italy.....	289,719.53	15,455.15	Total.....	4,072,953.44	3,867,094.51
United States.....	222,763.93	1,434.00			

The principal imports were foodstuffs, to the value of \$981,919; textiles, \$727,471; hardware, \$319,947; beverages, \$253,274; notions, \$135,135.

About 40 per cent of Paraguayan exports for the year 1908 consisted of beef products. There was exported: Jerked beef, 2,140,391 pounds; tallow, 471,749 pounds; 79,921 tanned hides; and 177,872 raw hides.

INDUSTRIES.

The resources of the Republic at present are confined mostly to the production of raw material, the industries being few in number. The principal crop is maté, of which about 17,600,000 pounds are treated annually. About one-half of this amount is exported. The plant grows wild in immense tracts in the northern and eastern sections of the Republic, being found most abundantly in the districts of Panadero, Igatimi, San Pedro, Villa Concepción, Caaguazu, Jesús, and Tacurupucu.

Two species of the quebracho tree are to be found growing in the Chaco country of Paraguay (and northern Argentine Republic), the red (*Aspidosperma quebracho*) being the one containing tannin used in the manufacture of the extract so valuable in the tanning of hides. The wood itself is one of the hardest known species and furnishes material for railway ties for a large part of South America. It is used also for furniture. Every portion of the tree is utilized for the extraction of tannin. In Paraguay and the Argentine Republic the wood is a large item of national wealth, the land bearing the trees selling from \$3,000 upward per square league. During the year 1908 Paraguay manufactured 15,000 tons (estimated) of extract, valued

at \$1,275,000. The exports of the Paraguay extract shipped through Montevideo to the United States in 1908 were valued at \$13,990.

According to a report on the subject prepared by the United States consul in Montevideo, the industry had its origin in France, where a consignment of logs was sent from Paraguay in 1874. The first factory in South America for the manufacture of the extract was erected at Puerto Casado, Paraguay, in 1889, followed a few years later by four others, to support which thousands of leagues of *quebracho* land in the Paraguay Chaco were bought.

Among the other forest products of value is the *curupay* tree, which grows in eastern Paraguay, furnishing a hard and durable wood, in demand for railroad ties, piles, and construction work. The bark of this tree also contains tannin in sufficient quantities (from 14 to 26 per cent) to make it of commercial value in the United States and Europe.

The production of the oil of *petit grain* extracted from the leaves of a native orange tree is being conducted on an increasing scale, but as yet in a primitive fashion, the principal distilling plants being located about 50 miles from Asunción, in the orange-growing district of Yaguarón. It is estimated that 300 to 350 pounds of orange leaves yield about 1 pound of essence, this product being used as a basis for various perfumes and in the manufacture of flavoring extracts. The preparation of the oil for trade purposes constitutes a lucrative industry in Paraguay. The price in Asunción ranges from \$6 to \$7 a kilogram, and exports show a constantly increasing ratio, as is shown by the following figures: 1905, 7,078 kilograms; 1907, 10,872 kilograms; 1908, 30,275 kilograms. *Petit grain* is the principal product exported from Paraguay to the United States, and during the calendar year 1909 17,263 pounds were shipped to that country, valued at \$24,766.

The climate and soil of the Republic are suited for all tropical growths. Rubber is grown to some extent, exports of this article in 1907 amounting to 4,400 pounds, sent principally to France. Cotton grows abundantly, and tobacco with little effort, while indigo and sugar cane yield easily to cultivation, and the forests contain many different grades of cabinet and dye woods, resins and balsams, while a native fiber plant known as *mapajo* is used by the Indians in the manufacture of a coarse textile for garments.

Tobacco is one of the leading crops, the quantity grown being estimated at 6,000,000 pounds annually. One-half of this is exported and the remainder consumed in the country. The Agricultural Bank, a government institution, is interesting itself in improving the quality of the crop, with the idea of securing better prices by the distribution of selected seed among the planters, and erecting drying sheds for the curing of the leaf in the several districts. The leaf is

graded into seven classes, ranging from the mild variety known as *pito*, and largely exported to Europe, to the coarse, strong grade called *para*, in demand in Uruguay and the Argentine Republic. The intermediate grades are consumed locally. The manufacture of cigars and cigarettes is carried on in a small way, the cigars being manufactured by one factory and selling at a low price.

The possibilities of the Republic as a cotton producer are immense, the rich and fertile soil assuring a large yield per acre. As early as 1863 there were estimated to be 58,000,000 cotton plants under cultivation in the country. The native cotton has a long, silky fiber and enjoys excellent reputation in Germany, England, and Holland on account of its fine weaving qualities.

The production of rice in the Republic is being stimulated by the National Agricultural Society, which has offered a premium of 1,000 pesos for the best grades.

The live-stock industry in the Republic is constantly increasing, many cattlemen from the Argentine Republic and Brazil having located in the country in recent years. The exports of meats and jerked beef are well known in foreign markets, principally Brazil, Cuba, and Spain, and the hides exported to Europe command good prices, forming fully 40 per cent of the exports of the country. It is estimated that on January 1, 1909, there were over 5,000,000 cattle of all kinds in the Republic. The free importation of cattle from the Argentine Republic and the State of Matto Grosso, Brazil, is permitted if there is no disease at the point of origin of shipments and the sanitary laws of the Republic are complied with.

A law promulgated July 7, 1908, to run until 1935, provides for the granting of franchises to companies engaged in the elaboration and canning of meat products, permitting the free importation of machinery and materials to be used in the erection of the plant and the preparation of its output.

There are two "saladeros," or beef-curing establishments, in Paraguay, both located on the river north of Asuncion. Each of these plants kills, from June to October, about 18,000 head of cattle, the product being the jerked beef which figures largely in Paraguayan exports. The establishment of meat-freezing or beef-extracting plants in Paraguay is the one thing required for the development of the grazing industry, and sooner or later capital will come to the country for this purpose.

The tanneries in the Republic give their attention chiefly to sole leather, but one at Asuncion turns out a limited line of calf, kid, saddle, and harness leather.

Various minerals are found in the Republic, such as quartz, agate, opals, kaolin, iron, manganese, copper, and mercury.

RAILWAYS AND INTERIOR WATERWAYS.

The only railway in Paraguay is that of the Paraguay Central Railway Company, which runs from the capital of the Republic, Asuncion, to Pirapo, a distance of 155 miles (250 kilometers).

A further extension of 78 miles (125 kilometers), now under construction, will be completed during the coming year, thus connecting Asuncion with Villa Encarnacion on the Alto Parana River. On the left bank of the Alto Parana and opposite Villa Encarnacion stands the town of Posadas, the capital of the Argentine territory of Misiones.



MAP SHOWING THE RAILROAD ROUTES OF PARAGUAY.

Through communication will be established toward the end of 1910 between Posadas and Buenos Aires, a distance of about 700 miles (1,127 kilometers). The only link missing will be across the river between Posadas and Villa Encarnacion, and this will be supplied by means of a modern ferryboat system to take the trains across. But a lot of important work has to be carried out before communication is properly established between Asuncion and Buenos Aires, as the Paraguay Central Railway has to change its gauge from 5 feet 6 inches to 4 feet 8½ inches, the railways between Buenos Aires and Posadas being of the latter gauge. This work is now being taken in hand, and it is confidently expected that it will be completed by the time the ferryboat is ready during the early part of 1911.

It is interesting to note to what extent the conditions of traveling will be altered in the districts affected by the railways under construction. The journey from Buenos Aires to Asuncion by river alone now occupies five days, and sometimes more, according to the state of the river, and to get to Posadas passengers have to tranship at Corrientes. A quicker service has recently been established, making the trip partly by rail, in fifty-five hours. Again, to go to the falls of Iguazu, which have few rivals in the world, a further transshipment is necessary at Posadas, so that the journey is expensive, long, and uncomfortable. With the change of gauge of the Paraguay Central Railway and the through combination by means of the ferryboats over the Alto Parana passengers will be able to travel from Buenos Aires to Asuncion in forty-eight hours, and consequently to the other districts of Paraguay near to Encarnacion, which to-day are almost inaccessible, in about forty hours, and to go to the Falls of Iguazu only one change need be made, viz, at Posadas, where passengers will leave the train to take the steamer for the falls, which are about two days' journey up the river.

Paraguay is practically dependent on its waterways for means of communication and transportation, which, however, afford an efficient and convenient outlet for its products.

It lies between the rivers Paraguay and Parana, which join their waters at or near Curupaity, at the extreme southern end of Paraguay, and together with the Uruguay River form the mighty estuary of the Rio de la Plata, one of the largest bodies of water in the world.

The Parana River has a total length of 2,043 miles (3,288 kilometers) from its source in the Goyaz Mountain, Brazil, to its junction with the Uruguay, and is navigable for vessels of 12 feet draft as far as the city of Corrientes, a distance of 676 miles (1,090 kilometers), and from that city to the Guayra Falls, a distance of 600 miles (965 kilometers), for small vessels, but beyond that point navigation is impeded by the falls.

The Paraguay River is the most important waterway of the Republic, being navigable for vessels of 12 feet draft as far as the cities of Asuncion and Villa Concepcion, and beyond that for smaller vessels almost its entire length of 1,800 miles.

A number of the affluents of the Paraguay River, such as the Pilcomayo, the Jejuy, and the Tibicuary River, are navigable for short distances.

Among the lakes the most important are the Ipoa and Ipacarai, the former covering an area of over 100 square miles, both of these being navigable for small craft.

The principal shipping points of the Republic on the Paraguay River are Asuncion, the capital, situated near the confluence of that river with the Pilcomayo; Villa Concepcion, and Humaita. The city of most importance on the Parana River is Villa Encarnacion.

MEANS OF APPROACH.

A regular steamship service is maintained between Buenos Aires, Montevideo, and Paraguayan River ports, the *Compañía de Navegación Mihanovich* having regular weekly sailings from Buenos Aires to Asuncion. The Lloyd Brasileiro, which now operates a regular line of steamers between New York and Brazilian ports, has also a service between Rio de Janeiro, Buenos Aires, and Matto Grosso, in Brazil, 3,000 miles inland, calling en route at Asuncion and other ports on the Paraguay River.

When the extension of the Paraguay Central Railroad is completed there will be through communication by rail with Argentina.

With the other Republics the only means of communication is by various trails, which can be taken by the individual only with great discomfort.

The total number of vessels which entered the port of Asuncion during 1908 was 1,320, and 1,184 cleared. The vessels calling at Paraguayan ports are chiefly Argentine and Brazilian passenger and cargo steamers, and sailing vessels of small tonnage.

POSTS AND TELEGRAPHS.

The Republic of Paraguay became a member of the International Postal Union in 1884. The number of post-offices of all kinds in the Republic in 1908 aggregated 383, which handled more than 6,000,000 pieces of mail matter during the preceding calendar year.

The telegraph system of the Republic comprises something over 2,000 miles of lines and is in an excellent condition. New lines have been freely constructed during the year under review and the service now reaches all points of importance on the southern frontier. It is hoped shortly to extend the service northward to the boundary with Brazil.

EDUCATION.

At the beginning of 1909 there were in Paraguay 344 primary schools, attended by 40,605 pupils, and employing a faculty of 756 teachers. These figures do not include the private schools which had during the same year an attendance of from 2,000 to 3,000 pupils.

The course of primary instruction covers a period of six years. There are two normal schools. Higher education is provided for in the University of Asuncion, which offers a six years' course in law, social sciences, and medicine. Shorter courses in pharmacy and other branches have recently been added. There is also a school of agriculture. The capital city has a library of 10,000 volumes, many pamphlets and magazines. During the year 1908 1,800 volumes were added.

Consul CORNELIUS FERRIS, of Asuncion, Paraguay, in a recent report on foreign educational influences in Paraguay, calls attention

to the action of French schools and universities in removing certain obstacles in the entrance requirements and in facilitating in other ways the admission of students from Latin America into the higher educational institutions both of Paris and of the different Departments of France. The necessary expenses of the long trip have been lessened by securing reductions to students of from 30 to 50 per cent on the regular rates accorded cabin passengers. The inconveniences which a stranger in a foreign country has to cope with are reduced to a minimum by the appointment of a committee on patronage in Paris for the purpose of receiving and directing students from Latin America and supplying them with useful data.

GENERAL INFORMATION.

By a presidential decree of August 6, 1909, the establishment is authorized of a mortgage bank in the capital of Paraguay with a capital of \$2,000,000. Operations may be begun when one-fourth of the capital has been subscribed, and, according to the charter, shall continue for fifty years, or at the discretion of the Executive.

Paraguay has recently promulgated a law providing that patent medicines, whether of domestic or foreign manufacture, shall not be placed on sale without the authorization of the National Department of Health. There must be printed on each receptacle a detailed statement showing the chemical contents of the compound by elements.

On July 30, 1909, the Government of Paraguay formally approved the arbitration convention signed in Asuncion on March 13 by the Minister of Foreign Relations of the Republic and the Minister from the United States.



PERU

GEOGRAPHICAL SKETCH.

The Republic of Peru, occupying territory on the Pacific Ocean, about 1,000 miles in length by 700 miles in width, between the Republics of Ecuador, Bolivia, Brazil, and Chile, extends over 679,600 square miles, being equal in size to the combined area of Texas, Nevada, Utah, Arizona, and New Mexico. It has a population of approximately 4,500,000, or 6.6 per square mile, being less than one-fourth the population per square mile of the United States (29.6).

Peru may be geographically divided into three distinct zones, with as many varieties of climate, products, and soil. The *zona seca*, or dry zone, extends along the coast to the foot of the Andes, and in it practically nothing can be raised without irrigation, although the majority of the larger commercial centers are there located. Between the three mountain ranges are the extremely fertile and healthful plateaux, or table-lands, crowned by various high and snow-clad peaks. On the eastern slopes of the mountains are the vast, luxuriant forests, with an innumerable variety of useful woods and medicinal plants.

Coffee, cacao, sugar cane, and the excellent Peruvian cotton are the principal agricultural products for export. The mines produce gold, silver, copper, iron, coal, and petroleum in considerable quantities, especially in the Cerro de Pasco district, with its almost inexhaustible supply of copper, gold, and silver. Among the forest products are india rubber and the cinchona bark. The alpaca, a native animal of Peru, furnishes an excellent grade of wool, of which large quantities are annually exported.

HISTORICAL SKETCH.

FRANCISCO PIZARRO, after several unsuccessful attempts, finally reached the coast of Peru in 1532. The vast Inca Empire at that time is said to have extended over more than one-half of the entire South American continent. PIZARRO found a people highly civilized, with excellent social and political institutions, who had developed agriculture to a remarkable degree. He was received with great courtesy by the Emperor, and having been invited to visit him in Cajamarca, PIZARRO entered the city on November 15, 1532, and made the unsuspecting Inca a prisoner in his own capital. By this bold stroke he at once obtained complete control over the natives, who, accustomed to being ruled in a paternal fashion, easily submitted to the invaders. When PIZARRO had put ATAHUALPA, the

Emperor of the Incas, to death, after a mock trial, on August 29, 1533, he enslaved the Indians, forcing them to work in the mines for the benefit of the conquerors, and they soon perished by thousands under the exactions of their cruel masters.

PIZARRO was appointed governor of the newly acquired territory and founded the city of Lima, the present capital of the Republic of Peru, on January 16, 1535, naming it the City of the Kings. He governed the country until his death by assassination on June 26, 1541.

DON CRISTOBAL DE VACA was governor until the year 1544, when the Viceroyalty of Peru was created. The first Viceroy, DON BLASCO NUÑEZ VELA, arrived at Lima on May 17, 1544, and was received with great honors and rejoicing. His jurisdiction at that time extended over the entire continent of South America, but the territory was subsequently divided into three viceroyalties, that of New Granada being created in 1718 and of the Rio de la Plata in 1776.

Forty viceroys succeeded BLASCO NUÑEZ in the government of Peru, under whose rule the enslavement of the Indians and the destruction of their ancient civilization was continued. Although the King of Spain issued laws for the better treatment of the aborigines, due to the unceasing efforts of Bishop LAS CASAS, their lot was not improved to any considerable extent.

The movement for independence began early in the nineteenth century in Peru, which was at that time the stronghold of Spanish power, but the various attempts were repressed with the greatest severity, the first martyrs to Peruvian independence being UBALDO and AGUILAR. Other patriots, however, took up the cause, and the struggle continued with varying success until in the year 1820 SAN MARTÍN, the great Argentine general, came to the aid of the Peruvians. He was ably assisted by the Admiral Lord COCHRANE, having command of the Chilean fleet, who captured and destroyed the Spanish force and attacked the fort at Callao. On July 9, 1821, SAN MARTÍN made his triumphal entrance into Lima, and on July 28, 1821, the independence of Peru was formally declared. On September 20, 1822, a constituent congress met, and on February 28, 1823, the first President of Peru, DON JOSÉ DE LA RIVA AGUERO, was inaugurated. LA SERNA, the last viceroy, continued, however, to resist the newly installed government, and it was due only to the combined efforts of Generals SAN MARTÍN and SIMÓN BOLÍVAR that the country was finally freed of the enemy. General SUCRÉ, BOLÍVAR's able lieutenant, defeated and completely routed the Royalists at the battle of Ayacucho on December 9, 1824.

The question of boundary involved Peru in a war with Chile in the year 1879, which lasted for five years, and which was finally settled by the treaty of March 8, 1884, whereby Peru ceded to Chile the

Province of Tarapaca and the Territories of Tacna and Arica for a period of ten years, at the end of which term a plebiscite was to decide to which country the territories were to belong.

The Republic of Peru has since that time gradually and peacefully developed her numerous natural resources.

Dr. AGUSTO B. LEGUIA, the present incumbent of the presidency, was inaugurated on September 24, 1908, for a term of four years.

CONSTITUTION AND GOVERNMENT.

The present constitution of the Republic of Peru was proclaimed on November 10, 1860. The usual division of the administration into the legislative, executive, and judicial branches is followed.

The National Congress consists of two chambers, the Senate and the House of Representatives, the former composed of 51 members and the latter of 116. Both Senators and Deputies are elected by direct popular vote for a term of six years, deputies in the proportion of one for every 30,000 inhabitants or fraction exceeding 15,000. Both chambers are renewed by thirds every two years.

Every citizen, over 21 years of age, who can read and write is entitled to vote.

The President of the Republic and two Vice-Presidents are also elected by popular vote for a term of four years and may not be reelected for a second consecutive term.

A Cabinet of six Ministers, or Secretaries, assists the President. They are: President of the Council and Minister of the Government and Police, Minister of Foreign Affairs, Minister of the Treasury and Commerce, Minister of Justice and Public Instruction, Minister of War and Marine, Minister of Public Works. The President receives a salary of \$15,000 per annum and an allowance of \$9,000 for expenses.

The National Supreme Court, the Superior Courts, the Courts of First Instance, and the Municipal Courts compose the judiciary of the Republic. The Justices of the Supreme Court are elected by the Congress, and the other Justices appointed by the President of the Republic.

INTERIOR GOVERNMENT.

Peru is politically divided into 19 Departments, two *Provincias litorales*, and one *Provincia constitucional*, which are subdivided into districts. The executive authority of each Department is vested in a Prefect appointed by the President of the Republic, while the Subprefect governs the Province and the Governor the district. These authorities are assisted by the departmental, provincial, and municipal councils, which are elected by direct vote and represent the people.

The Departments, with their respective capitals, are:

Department of—	Capital.
Amazonas.....	Chachapoyas.
Ancachs.....	Hauras.
Apurimac.....	Abancay.
Arequipa.....	Arequipa.
Ayacucho.....	Ayacucho.
Cajamarca.....	Cajamarca.
Cuzco.....	Cuzco.
Huancavelica.....	Huancavelica.
Huanuco.....	Huanuco.
Ica.....	Ica.
Junin.....	Cerro de Pasco.
Lambayeque.....	Chiclayo.
La Libertad.....	Trujillo.
Lima.....	Lima. ^a
Loreto.....	Iquitos.
Piura.....	Piura.
Puno.....	Puno.
San Martin.....	Moyobamba.
Tacna.....	Tacna.
Provincia constitutional of Callao.....	Callao.
Provincia litoral of Moquegua.....	Moquegua.
Provincia litoral of Tumbes.....	Tumbes.

The principal cities, with their population, are: Lima, 140,000; Arequipa, 35,000; Callao, 32,000; Cuzco, 26,000; and Iquitos, 20,000.

ARMY AND NAVY.

The Peruvian army consists of 7 battalions of infantry of 300 men each, 7 squadrons of cavalry of 125 men each, and a regiment of artillery of 590 men with 6 batteries of mountain guns and some field batteries. Ten officers and 4 noncommissioned officers have been loaned from the regular army of France to assist in the reorganization of the Peruvian army. The personnel of the army on a peace footing numbers about 4,000 officers and men. Every citizen of Peru is liable to military service from his nineteenth to fiftieth year. From the number of citizens liable to military service it is estimated that an army of 80,000 men could be mobilized within a short time.

The Peruvian navy comprises 14 vessels, the more important of which are 2 protected cruisers of 3,200 tons each, and a third cruiser of 1,700 tons, recently reboilered and rearmed, 2 army transports, and other auxiliary ships:

^a Also the capital of the Republic.

PERU IN 1909.

The President of the Republic delivered a message to the Federal Congress in the latter part of the year in which he stated that the Government had done all within its power to strengthen the bonds of amity and good will existing between Peru and every nation of the world.

The industrial development had already been and will continue to be encouraged, and the agricultural schools and experimental stations instituted by the Government are to be used steadily for the promotion of the agricultural and pastoral industries of the nation, and especially in the raising of sugar cane, cotton, cattle, and the grape.

The country passed through a good agricultural year and the exports of the chief products of the soil, such as sugar, cotton, india rubber, and coca were increased, as the export figures for the first half of 1909 very well demonstrate. The crop of sugar was exceptionally large.

On the other hand, there is an apparent decrease in the amount of the metals produced, but the smaller figures shown in 1909 are due more to the lower price paid for them than to an actual diminution in bulk. The surprising augmentation in the export of crude oil, over 100 per cent, in fact, above the figures for 1908, shows that Peru's supply of petroleum must be seriously considered. This is of especial advantage to the country, because the high price of coal on the west coast of South America creates a steady demand for any product that can perform the same amount of work at a lower cost.

The Government, in its expenditures for the year, overstepped the estimated receipts of something over \$15,000,000, but by careful economy at the end of the year was able by careful effort practically to neutralize this deficit. As, however, some of the expenditures were applied to permanent improvements within the country, the nation is on the whole the gainer.

It is a source of congratulation that the Medical Congress, held in Guatemala in 1908, was invited by the Government to hold the next meeting in 1911 in Lima, and that this invitation was accepted.

The exhibitors of Peru at the Quito Exposition, held in 1909, were awarded 3 grand special prizes and 102 lesser awards.

The railroad policy of the Republic was advanced during the year, the three great enterprises on which Peru has set its hopes having been materially advanced. These are: First, the filling of the gap between the northern and southern systems in the country, which will ultimately form a division of the great Pan-American railway; second, the construction of a line from some northern seaport across the Andes; and third, the construction of a line from the higher

plateaus of the cordillera eastward through the *montaña* to reach the tributaries of the upper Amazon, if not to extend as far as Iquitos itself.

Toward the close of the year the Government put into force rules by which the promiscuous entry of Chinese manual laborers was restricted, and at the same time it passed laws for the alienation of public lands so that the promotion of colonization and the stimulation of immigration into the country of a more desirable class of immigrants would be facilitated.

FINANCE.

The estimate of the receipts and expenditures for the year 1909 was as follows: Receipts, £3,047,386; expenditures, £3,239,987. These receipts and expenditures were made up as follows:

<i>Receipts.</i>	
Customs.....	£1, 450, 250
Taxes.....	950, 520
Salt monopoly.....	180, 000
Posts and telegraphs.....	109, 500
Various.....	357, 116
Total.....	3, 047, 386
<i>Expenditures.</i>	
Legislature.....	£105, 939
Interior.....	484, 338
Foreign Affairs.....	56, 032
Justice and Instruction.....	454, 228
Finance and Commerce.....	404, 707
War and Marine.....	564, 157
Fomento.....	316, 523
Extraordinary expenses.....	854, 063
Total.....	3, 239, 987

In order to avoid the deficit indicated above, the Government, during the year, introduced a number of economies in internal expenditures, the effect of which, it is reported, successfully wiped out most of the indicated deficit. The estimate of revenues for the year 1910 is placed at £2,746,245.

On April 30, 1909, the Peruvian internal debt amounted to £4,254,450. This comprised the outstanding 1889 bonds for £2,660,645, and the outstanding 1898 bonds for £1,593,815.

According to a report of the Lima Chamber of Commerce, made on September 20, 1909, the following table represents the bank situation in Peru:

Name of bank.	Assets.				
	Cash on hand.	Securities and debit accounts current.	Property and real estate.	Sundry assets.	Total.
Banco del Perú y Londres.....	£395,602	£3,248,317	£80,382	£27,786	£3,752,087
Caja de Ahorros.....	34,466	450,428	21,349	2,650	508,893
Banco Italiano.....	87,762	679,935	26,308	22,353	816,358
Banco Internacional del Perú.....	31,052	216,868	3,786	2,170	253,876
Banco Popular del Perú.....	106,065	313,692	3,192	2,698	425,647
Caja de Depósitos y Consignaciones.....	WU	281,493	899	.....	283,384
Banco Alemán Transatlántico.....	453,461	693,258	.....	34,492	1,181,211
Total.....	1,109,400	5,883,991	135,916	92,149	7,221,456

Name of bank.	Liabilities.			
	Capital and reserve funds.	Credit accounts, deposits, and drafts payable.	Sundry liabilities.	Total.
Banco del Perú y Londres.....	£775,000	£2,893,122	£83,965	£3,752,087
Caja de Ahorros.....	27,753	465,417	15,723	508,893
Banco Italiano.....	286,272	495,357	34,729	816,358
Banco Internacional del Perú.....	125,000	126,602	2,274	253,876
Banco Popular del Perú.....	195,138	224,843	5,666	425,647
Caja de Depósitos y Consignaciones.....	102,100	177,040	4,244	283,384
Banco Alemán Transatlántico.....	200,000	905,428	75,783	1,181,211
Total.....	1,711,263	5,287,809	222,384	7,221,456

COMMERCE.

Complete statistics of the foreign trade of the Republic for the year 1909 are not yet available. According to a statement prepared for "El Diario," of Lima, and published January 1, 1910, by Señor Don Enrique Ramírez Gaston, Chief of the Section of Statistics in the Custom House at Callao, the value of the trade of Peru for the first six months of the year 1909 amounted to £4,122,142, of which £1,913,570 was imports and £2,208,572 was exports. For the same period of the preceding year the imports were £2,891,210 and the exports £2,373,330, a total of £5,264,540, showing a loss in trade for the half year of £1,142,298.

The totals for the year 1908 are complete, with the exception of one Department, that of Loreto. They show imports of £5,295,625 and exports of £5,375,712. Imports into Loreto for the year 1907 amounted to £715,799. The reports do not give the exports for Loreto for this year, but a fair estimate of the total trade of Peru for the year 1908 would be: Imports, £6,000,000 and exports, £6,100,000. The latest available statistics of imports and exports of Peru, by countries and by articles, are for the year 1907.

The Peruvian monetary standard is the libra of 10 soles, equal in value, weight, and fineness to the British pound sterling.

The imports by countries of origin for the three years 1905, 1906, and 1907 (imports into the Department of Loreto, principal port, Iquitos, are given only in gross) were as follows:

Country.	1905.	1906.	1907.
United Kingdom.....	£1,486,056	£1,347,174	£1,634,129
India.....	21,029	23,191	60,256
Australia.....	253,644	271,714	318,463
Canada.....	13,668	5,461	8,769
Belgium.....	175,627	184,789	259,911
Chile.....	247,529	273,882	242,733
China.....	100,671	102,463	180,666
France.....	252,777	313,851	291,959
Germany.....	679,156	914,239	893,434
Italy.....	169,179	166,852	181,622
Spain.....	64,438	47,644	60,328
United States.....	692,594	1,108,230	1,184,668
Other countries.....	201,328	230,431	202,813
Total.....	4,357,696	4,989,921	5,519,751
Department of Loreto.....	560,028	642,428	715,799
Grand total.....	4,917,724	5,632,349	6,235,550

For the year 1907, the principal articles imported, with their values, were:

Articles.	Value.	Imported from—
Coal.....	\$244,554	Chiefly, United Kingdom, Australia, and United States.
Cotton goods.....	651,249	Belgium, United States, and Germany.
Explosives.....	110,656	United States and Germany.
Machinery and accessories.....	293,693	United Kingdom, United States, and Germany.
Metal and manufactures thereof.....	1,150,195	United States, United Kingdom, Germany, and France.
Rice.....	205,904	China and Siam.
Paper manufactures, books, stationery, etc.....	140,226	United States, United Kingdom, Germany, and France.
Timber and manufactures of wood.....	208,628	United States.
Wines, beers, liquors.....	132,326	France, Italy, and Germany.
Wheat.....	240,714	Australia.
Woolen goods.....	259,317	United Kingdom, Germany, and France.
Cement and glassware.....	186,719	United States and France.

According to the United States statistics for the year ending June 30, 1909, the total exports from the United States to Peru were \$4,557,864. The principal articles exported were:

Breadstuffs.....	\$448,487
Structural iron and steel.....	135,934
Builders' hardware.....	112,000
Machinery of all kinds.....	1,147,738
Lard.....	179,934
Illuminating oil.....	101,642
Lumber.....	822,195

According to the report of Señor Don Enrique Ramíres Gaston, mentioned above, the following table shows the exports for the first six months of the year 1909, and the exports for the corresponding months of 1908:

Article.	1909.	1908.
Minerals.....	£668,421.5	£856,226.5
Sugar.....	455,752.7	383,854.6
Cotton.....	232,039.8	230,015.6
Rubber.....	183,310.0	173,944.3
Wool.....	162,508.2	155,669.4
Crude petroleum.....	56,448.0	25,601.6
Hides.....	47,098.3	49,368.4
Coca.....	31,974.7	28,051.1
Rice.....	23,023.1	31,337.5
Cacao.....	7,643.4	11,903.8
Alcohol.....	3,740.6	7,474.3

The Peruvian statistics of exports by countries for the three years 1905, 1906, and 1907 were as follows:

Country.	1905.	1906.	1907.
United Kingdom.....	£2,014,156	£2,353,813	£2,433,913
British Columbia.....	9,741		
Barbados.....	75,563	25,885	4,775
Belgium.....	18,231	130,314	268,572
Bolivia.....	261,156	302,110	103,094
Brazil.....	96,178	12,033	1,640
Chile.....	428,054	967,926	573,192
Colombia.....	15,376	5,418	1,037
Ecuador.....	44,814	31,137	25,215
France.....	301,635	503,043	462,758
Germany.....	342,370	521,015	366,957
Italy.....	15,945	9,357	5,095
Spain.....	18,509	19,118	59,258
United States.....	380,000	636,170	1,367,106
Other countries.....	79,911	151,373	71,932
Total.....	4,101,639	5,668,712	5,744,544
Department of Loreto.....	678,775	931,613	927,052
Grand total.....	4,780,414	6,600,325	6,671,596

For the year 1907 the principal exports were:

Articles.	Value.	Exported.
Minerals and metals.....	£2,003,689	Chiefly to the United States and United Kingdom.
Rubber.....	954,623	Chiefly to United Kingdom, United States, and France.
Sugar.....	827,298	Chiefly to United Kingdom and United States.
Cotton ^a	516,267	Chiefly to United Kingdom.
Wool.....	428,129	Do.
Guano.....	392,129	Do.
Hides.....	124,676	Chiefly to United States and United Kingdom.
Hats.....	96,938	Chiefly to United States, France, and United Kingdom.

^a For the year 1908 the export of cotton is given at 31,165 metric tons, valued at £844,377.

According to the United States statistics, the imports into the United States from Peru for the year ending June 30, 1909, amounted to \$6,386,544.

The principal import was copper—

In bars, pigs, etc.....	\$3,783,839
In ore, matte, and regulus.....	283,074
Total.....	4,066,913

Other imports from Peru were:

Cotton.....	\$886, 650
Guano.....	245, 605
Hides and skins.....	209, 972
Rubber.....	213, 567
Sugar.....	425, 087
Wool.....	107, 206

INDUSTRIES.

The great sources of national wealth are mining and agriculture with mining in the first place. The total annual mineral output of the country is valued at about \$25,000,000. Copper occupies first place, with a production of over \$8,000,000; followed by silver, \$6,000,000; crude petroleum, \$1,250,000; coal, \$500,000; gold, \$500,000; lead, \$170,000; and other minerals in diminishing proportions.

The Department of Junin, in which is located the celebrated Cerro de Pasco mining district, stands at the head of producing sections, the silver output for one year being 108,026 kilograms, 17,151 tons of copper, 169,368 tons of coal, and 4,970 tons of lead.

Increased numbers of petitions for denouncement of mining claims mark the development of the industry throughout the Republic, while mineral exports to the United States alone are valued at about \$5,000,000. The superficial area conceded for mining purposes, as stated in the "*Código de Minería*," is about 275 square miles, though this amount is increasing annually.

The developments in copper mining are particularly numerous and important. The company operating at Cerro de Pasco produces approximately 40 tons of copper daily, or an annual output of over 15,000 tons, and it is estimated that within a short time the yearly shipments will amount to 50,000 tons, thus bringing the country to third place as a producer of copper. The famous ore bodies of Cerro de Pasco are situated at the junction of the East and West Cordilleras and contain copper, silver, lead, gold, and several other minerals, among which is vanadium, recently discovered.

Silver is found throughout the Peruvian Andean region, commonly associated with lead or copper and frequently with both.

"Cascajo" is a silver-bearing mineral peculiar to Peru, and, with copper, forms the great deposit of the Cerro de Pasco district.

Puno produces 70 per cent of the total gold of the Republic, its deposits being very rich, though inadequately developed.

Petroleum production is increasing, the total number of wells being about 600. The districts of Zorritos, Lobitos, Negritos, Pirin, Chimbote, Ica, and Puno, in southern Peru, near Lake Titicaca are actually producing oil. It has long been known that there were immense

deposits in some of the coast districts, but there has until recently been no systematic examination of them.

Anthracite coal is found in the Chimbote and Huaraz districts, in Otuzco, Huamachuco, and elsewhere, and bituminous coal is to be found in Cajamarca, Ancachs, Ica, Arequipa, Puno, and Moquega.

A sulphur company in the Department of Piura is the only producer of this mineral, the plant having a capacity of 150 tons daily. The discovery of vanadium was made in 1904, and from June, 1906, to January, 1909, there were produced and shipped to the United States 1,800 tons of oxidized ores, containing 20 per cent vanadic ores. About 70 per cent of the world's output of vanadium now comes from Peru.

The working of the guano deposits of the Republic constitutes an important branch of industry, and within the last eighteen years the Peruvian Corporation has extracted a third of the 3,000,000 tons allowed under its contract. The Government is very desirous of applying this fertilizer to the agricultural development of the country, and has authorized a company capitalized at £30,000 to operate in the Republic for the supply of guano to the farmers just as it is taken from the deposits. During 1909 the Peruvian Corporation only extracted guano from the islands north of Callao, the deposits to the south being reserved for the uses of national agriculture.

On the south coast and in the neighboring islands are immense nitrate deposits, and in the Bay of Sechura pearl fisheries are being operated profitably under government concession.

Peru's leading crops, sugar, cotton, and rice, are irrigation crops.

Sugar growing is carried on chiefly on the coast regions, the total area devoted to the industry being about 200,000 acres. The average annual crop of sugar is 150,000 tons. There are about 50 plantations, the product being largely exported to England and Chile for refining. The plantations in the vicinity of Lima furnish about 20,000 tons of white sugar annually, and 10,000 tons of *chancaca*, a product obtained by boiling down the juice to a thick sirup and allowing it to solidify by cooling.

The best grades of cotton are grown near Piura and shipped from Paita, the high quality being attributable to the peculiarities of soil and climate for which this narrow belt of coast land is noted. Five good crops may be obtained from one planting, the third year representing the maximum yield. Irrigation is being applied to increasing the cultivable areas in the Departments of Piura and of Lima, a canal 22 miles long forming the base of distribution in the former locality.

Cotton manufacturing is carried on in five well-equipped factories in Lima, another being operated in Arequipa, and one at Ica. The annual consumption of raw material is about 3,000 tons, the native product being classed as superior to the imported article. The Gov-

ernment encourages the industry by the distribution of seeds to cotton planters and by legislation favorable to the factories.

Tarra, or *dividivi*, a tree used for tanning, is native to Peru, being found chiefly in the Department of Ica, situated to the south of Lima.

Rubber is collected in large quantities in the forest regions and shipped down the Amazon. Pending the enactment of a law for the protection of the rubber industry, legislative measures are in effect whereby all decrees and resolutions of a general character concerning the exploitation of leased lands in the *montaña* containing timber and rubber trees are abrogated.

The cultivation of coca (*Erythroxylon coca peruanus*), the plant from which medicinal cocaine is obtained, is an important industry in certain sections of Peru, principally the Cuzco Valley. The annual yield is about 50,000 quintals and its value varies from \$300,000 to \$1,000,000, according to fluctuations of the market. The most important growing section is the district of Otuzco in the Department of La Libertad. For the manufacture of cocaine there are 24 small factories, the 1907 product being 5,914 kilograms, worth about \$330,000.

Coffee is grown in central Peru, the chief producing districts being Chancamayo, Perene, and Paucartambo, and also the Huanua district. Production in 1907 was valued at \$200,000.

Cacao culture is increasing, about 200,000 trees having been planted in the Perene region.

Rice, tobacco, wheat, ramie, and maize are also grown, and silk culture and viticulture are engaging the attention of industrial enterprises.

The topographical and climatic conditions of Peru are favorable to the profitable raising of sheep and cattle, as is proved by the steady growth of this industry in the valleys and ravines of the tablelands, where the best conditions for its development—that is to say, a suitable climate and good pasturage—are found. The principal districts in which this industry thrives are Cajamarca, Junin, Ayacucho, Anta, Acomayo, Canas, Cuzco, Chumbivilcas, Arequipa, La Libertad, Ancachs, and Puno. The yield of wool in these districts varies from 2 to 6½ pounds per head, according to the breed of sheep and the intelligence shown in methods of handling the flocks.

The hide industry in Peru is one of growing importance. Exportations are considerable, while the resources warrant its further development. Cattle are shipped principally from the ports of Chala and Pisco, and from other ports in much smaller proportions.

The central market for goatskins is Piura, in northern Peru. The goat and kid skins of Piura are in great demand and considered especially valuable, owing to their unusually fine texture, flexibility, extreme softness, and adaptability for handling. These skins are

sought for by glove and fine leather makers. There are about 20 tanneries in the country.

The wool product represents an annual valuation of over \$2,000,000, the export quantity being over 4,000 tons. Alpacas, sheep, and llamas are the wool-bearing animals of the country. The introduction of Patagonian sheep for cross breeding is one of the recent developments of the pastoral industry, and a British enterprise conducts a sheep ranch extending over 130 square miles. Hides of various kinds are estimated at an annual valuation of \$650,000.

Five woollen factories are operated, giving employment to a large number of workmen, and preparing about 600,000 kilograms of wool for the market annually. The total output, however, fails to meet local demands, and there is a large import trade under this head.

RAILWAYS AND INTERIOR WATERWAYS.

Railways in operation in the Republic have an extent of about 1,500 miles (2,414 kilometers), 65 per cent of which is managed by the Peruvian Corporation.

The Central Railway is the most important line, running from Callao to Oroya over 140 miles of track, with branch lines to the Cerro de Pasco district and to Huancayo on the route to Ayacucho. The building of the Huancayo-Ayacucho connection is included in the ultimate purpose to extend the line to Cuzco.

Second in importance is the Southern Railway, extending from Mollendo to Puno on Lake Titicaca, a distance of over 300 miles, from which point it connects with a line of steamers running to the Bolivian lake port of Guaqui. From Juliaca, near the shore of Lake Titicaca, a branch extending 125 miles to Sicuani has been open for some years, and the route has now been extended to Cuzco, the rails having reached that point on September 13, 1908. To connect the Central and Southern lines therefore requires only 300 miles of construction between Cuzco and Huancayo.

Other roads in operation comprise spurs running from minor ports up the various river valleys for comparatively short distances, and are available for the transport of agricultural products to the coast.

From the fine natural harbor of Chimbote a railroad runs inland to Tablones, a distance of about 30 miles. The company exploiting the coal beds has acquired the concession for completing the line. Embankment work has been extended 28 miles beyond Tablones, and as soon as through communication is established it will be possible to deliver at least 150,000 tons of coal per annum at the seaboard. The coal is stated to outcrop for 20 miles along the route of the railway. The resumption of construction work on this Chimbote Railway extension between Tablones and Recuay will open up extensive coal fields situated about 64 miles from the coast of Peru.

From the coal fields of Recuay, along the Huaylas Valley, the road will pass through the most densely populated district of Peru, with well-established sugar, cotton, and other agricultural industries. A large number of copper and other mines are also situated in this valley, which suffer from the present high cost of transportation to the coast, both for ores and machinery. The quality of coal mined



MAP SHOWING RAILROADS IN OPERATION, AND PROJECTED LINES, IN PERU.

is reported as good, and an order for 100 tons was given for the use of the American fleet.

In accordance with the existing programme for extending the railway mileage in Peru, the Government has contracted with the Peruvian Corporation for the extension to Ayacucho of the line already under construction between Oroya and Huancayo. A civil

engineer has been commissioned to undertake the preliminary survey work on the line, which will have a total length of 208 kilometers and cost, exclusive of rolling stock, approximately 910,000 Peruvian *libras*, an average cost of 3,500 *libras* per kilometer.

The line when completed will be of a standard gauge, and on the section already completed the maximum grade is 1 per cent. The proposed line, apart from placing in rapid and easy communication the capital and the districts of Junin, Huancavelica, and Ayacucho, will form an important link in the proposed Pan-American railway.

The Government has contracted for the survey of a railroad from Paita, on the Pacific coast, to Marañon in the Amazon Basin, the preliminary plan for which was completed in December. The President recommended that the proposed railroad from Cerro de Pasco to Ucayali receive a subvention of £3,000,000 in 5 per cent interest-bearing bonds. The railroads from Tumbes to Puerto Pizarro and from Yonan to Chilete will soon be completed, and those from Lima to Huacho, Huancayo, and Ayacucho and from Chimbote to Retuay are in process of construction.

It is believed that the great trunk line which is to connect Iquitos, the head of steam navigation on the Amazon, with the western coast of South America, will soon be an accomplished fact. The Peruvian Government has already authorized a German company to make the necessary reconnoissances and reports for the purpose of determining the nature of the country for railroad building through which the line is to be routed. The new railroad will be 400 miles long, and the cost of construction is estimated at \$15,000,000. This line should play as important a part in the development of Peru as did any one of the great transcontinental lines of the United States in the development of the latter country.

On December 13, 1910, the President authorized the Minister of Fomento to proceed with the construction of that section of the Pascasmayo Railway which is to connect Chilete with Madalena.

Aside from its long coast line and numerous bays and ports on the Pacific, Peru has been favored by nature with an extensive fluvial system, affording a convenient outlet for her products on the Atlantic side. It is estimated that there are from 3,000 to 4,000 miles of rivers in Peru navigable for vessels of from 8 to 20 feet draft. The port of Iquitos, on the upper Amazon, the principal inland port, can be reached in twenty-six days from New York by steamers sailing every forty days. Other inland ports of some importance are Yurimaguas, on the Huallaga River, Contamana, on the Ucayali River, and Puerto Bermudez. On Lake Titicaca, Puno is the important port on the Peruvian side.

The majority of Peru's navigable rivers are on the east side of the Andes, the rivers flowing into the Pacific Ocean being of but

little use as fluvial arteries; the Tumbez and the Chira are the only two that are navigable even for short distances.

The upper Amazon, or, as it is called in Peru, the Marañón, with its numerous tributaries, of which the principal ones are the Ucayali and the Huallaga, form the extensive river system of eastern Peru, the Amazon River being navigable in its entire length in Brazil and in Peru. A number of steamship companies maintain a regular service on the various affluents of the Amazon as far as the port of Mayro, but 325 miles distant from Lima.

Peru has a number of large and beautiful lakes, among which the largest is Lake Titicaca, on the boundary line between Peru and Bolivia, and the highest lake in the world navigated by steamers. In Peru proper are, among others, Lake Chinchay-Cono, 37 miles in length by 7 miles wide, situated at an altitude of 13,800 feet, and Lake Lauricocha, at 14,270 feet above the level of the sea, said to be the source of the Amazon River.

Numerous highways are under construction, one of the most important extending between Paucartambo and the Madre de Dios River, a distance of 125 miles, the cost of which is estimated at £34,000.

MEANS OF APPROACH.

The coast of Peru has a number of indentations with good bays, offering shelter and anchorage for ocean-going vessels. The ports on the Pacific Ocean at which steamers call regularly are Tumbez, Paíta, Eten, Pacasmayo, Salaverry, Chimbote, Huacho, Puerto Ancon, Callao, Pisco, Mollendo, and Ilo. The most important of these is Callao, 10 miles from Lima, the capital of the Republic.

The ports of Peru can be reached by water from New York via the straits of Magellan, or via Colon, taking direct steamer from Panama. From San Francisco steamers leave about every ten days and touch at all the ports on the Pacific coast.

A fast steamship service was inaugurated in October, 1909, between the west coast ports of South America and Europe by the German Kosmos Steamship Company. These boats will make special connections at Valparaíso with the Trans-Andine Railway, in order to permit passengers to make the trip by rail to Buenos Aires, and there make immediate connection with another steamer of the company which will be in readiness to receive them.

In January, 1910, the Peruvian Steamship Company established a new direct line of steamers from Callao, Peru, to Panama. The ships are scheduled to make the trip from Callao to Panama in five days, thus reducing the time formerly required between the two points.

There are several companies having large and modernly equipped steamers which ply regularly between Callao and European ports.

POSTS AND TELEGRAPHS.

The postal and telegraph services of the Republic underwent great improvement during 1909. To the 593 post-offices in the Republic at the close of the fiscal year 1908 new offices have been added to the number of 46 during the fiscal year 1909. The government revenues received from this branch of the public service during the period under review amounted to £81,384.

The telegraph system of the Republic was increased by 23 offices during the year, bringing the total number up to 178. Over 751 miles of telegraph line were strung, making the total extent of the telegraph lines something over 5,986 miles. It is stated that a number of wireless telegraph stations will be erected in 1910 at various points along the coast of Peru.

EDUCATION.

The Government is encouraging the cause of education, which in Peru is a national institution under the Department of Justice and Public Instruction. The number of educational institutions is continually being increased through government aid. Normal schools for both sexes are maintained, and the primary schools at the beginning of 1909 numbered 2,339, with a corps of 3,105 teachers and 162,298 pupils. The policy of the administration is to improve and perfect the school system of the Republic in so far as possible. The Central Manual Training and Physical Culture School, established in Lima in June, 1907, has a roster of 120 pupils.

An executive decree of January 2, 1909, provides for the annual appointment of four students in the learned professions to continue their studies abroad at the expense of the Government, it being provided that at the expiration of two years they should be employed in government service.

A North American professor has been employed by the Peruvian Government to organize the course in commercial education at Guadalupe College, Lima, one of the old institutions of learning in the Republic. Peru is a promising field for this class of instruction, and the opportunities for native young men properly trained in the commercial branches are very great. The establishment of an extensive course of training of this order in the leading college of the country meets a long-felt want.

An executive decree has been issued for an increased attendance at the normal schools and the further extension of the influence of these institutions by authorizing the attendance of teachers in the active service on special courses in methodology. The increased attendance at the normal schools is imperative if the Government expects to be able to furnish a sufficient number of trained teachers properly to educate the children of school age who are now presenting them-

selves in increasing numbers in various primary schools of the Republic. The decree meets the situation by providing for the admission in the Male Normal School of 50 day pupils of 16 to 25 years of age who possess the necessary mental and physical qualifications.

Each Department of the Republic of Peru is allowed a certain number of scholarships in the National School of Agriculture, the National Government paying the necessary expenses, such as subsistence, lodgings, and laundry, and a weekly stipend to such students as are fortunate enough to secure scholarships from their respective Departments. The instruction imparted in this school is of an eminently practical kind, and the aim constantly kept in mind is that the graduates are to be effective farmers, who, on account of their familiarity with the most advanced systems of agriculture, will become leaders in all matters of agricultural reform.

GENERAL INFORMATION.

In a report to his home Government, the Peruvian Consul-General at New York states that for the transaction of banking business between Peru and the United States a special department has been established in the National Bank of Commerce of New York. The connections have been made with the Bank of Peru and London and with the German Bank of Lima. Banking firms in other sections of Latin America are also granted the necessary facilities for the transaction of business which was formerly carried on through European channels.

According to an executive decree of November 26, 1909, issued in conformity with the law that confers upon the State the monopoly of tobacco, the Government will buy all the manufactured or leaf tobacco, both domestic and foreign, on hand in the custom-houses and tobacco factories of the Republic, as well as the tobacco in transit, paying for the same a just price, to be fixed by the Government. Should questions arise concerning the price to be paid, they are to be settled in accordance with the provisions of article 2 of the decree of July 3, 1909.

A magnificent new sanatorium was opened at the beginning of the year in the village of Chosica, in the hill country of Peru, 30 miles from Lima, and a favorite summer resort for the residents of that city. The sanatorium is fitted with all modern conveniences and has an efficient staff of physicians and nurses.

A decree of the President, dated September 10, 1909, provides for the adequate protection of the proprietary rights in trade-marks registered in the Republic.

The treaty signed in Rio de Janeiro on September 8, 1909, by the representatives of Brazil and Peru, concerning the boundary between the two countries and the commerce and navigation of the Amazon Basin, was later approved by the Congress of Peru.

SALVADOR

GEOGRAPHICAL SKETCH.

The Republic of El Salvador, sometimes erroneously called San Salvador, the name of its capital, is the smallest of the 21 American Republics. It is the only one of the Central American States lying wholly on the Pacific Ocean and is bordered on the land side by Guatemala and Honduras. Salvador has an area of 7,225 square miles, somewhat less than the State of New Jersey, and enjoys the distinction of being the most densely populated country in the Western Hemisphere, with 1,707,000 inhabitants, or 236 per square mile, which is 8 times the population per square mile of the United States of America (29.6).

Two mountain chains cross the country almost in its entire length, sending out numerous spurs and attaining considerable altitudes. Inclosed by these ranges are numerous valleys, among which that of the River Lempa is the most important. Coffee, cacao, tobacco, indigo, india rubber, and the so-called "Peruvian balsam," the product of the *Myroxylon pereiræ*, are the most important products. Gold and silver are at present the only mineral products exported.

HISTORICAL SKETCH.

When Cortez had completed the conquest of Mexico, he dispatched his lieutenants in all directions to explore the country to the south and bring it under the Spanish domain. To PEDRO ALVARADO fell the task of exploring what is now the Republic of Salvador, and in the year 1524 he invaded the country, defeated the natives, and early in the year 1525 captured their capital, Cuscatlan. Salvador then became a part of the captain-generalcy of Guatemala and later of the vice-royalty of Mexico. It was governed by the Spanish authorities residing in Guatemala City.

Although Salvador suffered less from Spanish rule than some of the other countries, being farther removed from the central seat of authority, it nevertheless gladly adhered to the movement for independence, which had been initiated in Guatemala on September 15, 1821, and joined the Central American Federation. When the federation was incorporated into the Mexican Empire, in the year following, Salvador protested vehemently against this annexation, and a resolution was adopted by which the people declared themselves in favor of annexation to the United States rather than to Mexico.

On the fall of ITURBIDE's short-lived empire in 1822, Salvador became once more a State of the Central American Federation.

A constituent congress adopted a constitution on November 22, 1824. In 1839 the Central American Federation was dissolved, but it was not until the year 1841 that Salvador formally withdrew, and on February 18 of that year declared its independence and separation from the federation. The various efforts to reestablish the union which have been made from time to time have not been successful.

Gen. FERNANDO FIGUEROA was inaugurated as President of the Republic on March 1, 1907, for four years.

CONSTITUTION AND GOVERNMENT.

The constitution of Salvador now in force was promulgated on August 13, 1886.

The legislative power is vested in the National Assembly, composed of one chamber, called the National Assembly of Deputies. It has 42 members, 3 deputies being elected for each Department by direct popular vote for a term of one year. Every citizen over 18 years of age is not only entitled but obliged to vote.

The President and Vice-President of the Republic are elected by popular vote for a term of four years. A Cabinet of four Ministers or Secretaries assists the President in the administration of the affairs of the country. Its members are appointed by the President, but are also responsible to the National Assembly. They are as follows: Minister of Foreign Affairs and Justice, Minister of the Treasury and Public Credit, Minister of Public Instruction, Public Works, and Government, and Minister of War and Marine. The salary of the President is \$9,600 per annum.

The judiciary of the country is composed of a Supreme Court of Justice, several courts of first, second, and third instance, and a number of minor courts. The justices of the Supreme Court are elected by the National Assembly for a term of two years and the judges of the first instance are appointed by the Supreme Court for a term of two years. The justices of peace are appointed by the judges of first instance.

INTERIOR GOVERNMENT.

The Republic is divided politically into 14 Departments, subdivided into districts, and these into towns and municipalities. The governors of the Departments are appointed by the President for a term of four years, as are also the executive chiefs of the districts. The mayors and municipal councils of the cities are elected by direct vote.

The Departments of El Salvador and their respective capitals are:

	Capital.
San Salvador	San Salvador (also the capital of the Republic).
La Libertad	Santa Tecla, or new San Salvador.
Sonsonate	Sonsonate.
Ahuachapan	Ahuachapan.
Santa Ana	Santa Ana.
Chalatenango	Chalatenango.
Cuscatlan	Cojutepeque.
Cabañas	Sensuntepeque.
San Vicente	San Vicente.
La Paz	Zacatecoluca.
Usulután	Usulután.
San Miguel	San Miguel.
Morazan	San Francisco.
La Unión	La Unión.

The principal cities, with the population of each, are: San Salvador, 60,000; Santa Ana, 49,000; La Unión, 4,500.

ARMY AND NAVY.

The national army of Salvador may be divided into three distinct parts, namely, (1) available forces, consisting of 78 chief officers, 512 petty officers, and 15,554 privates; (2) forces that can be mustered in and made available, consisting of 49 chief officers, 356 petty officers, and 11,176 privates; (3) the reserve forces, composed of 251 chief officers, 1,743 petty officers, and 15,554 enlisted men. The grand total for the three divisions is thus—378 chief officers, 2,611 petty officers, and 82,881 enlisted men.

The navy is yet to be created.

SALVADOR IN 1909.

The Republic made satisfactory advancement during the year. The message of the President in congratulating the Government on this condition asserts that the relations with all other countries were extremely cordial.

A subject for congratulation, also, is the fact that financially the country was on a very firm basis. The national revenues for the year increased over those of 1908, while the expenditures for the same period decreased, although equally as much was accomplished.

The general trade of the nation was likewise improved. Its total value amounted to over \$10,000,000, with a balance well in favor of the country. Although 1908 had been reported to be one of great prosperity, yet the total trade for the last year was even greater. It must be remembered, too, that the foreign trade in Salvador is not the principal exponent of the prosperity of the country. The area of the

Republic is well populated, having the largest proportion of inhabitants per square mile of any of the American Republics. Therefore, whatever is exported is altogether a surplus product, because the people produce and consume a great deal of what is grown within their own country. Internal commerce was as active as the interchange of goods with foreign countries, and consequently Salvador can look back upon 1909 as one of the most prosperous in its history.

Practically no extension of the railroad system was made during 1909, but two projects of great value to the country were authorized—one was the construction of the line from La Union to San Miguel, in the east, which may ultimately be extended clear across the Republic; the other was the construction of a line to fill the gap between Santa Ana, in the west, and some point on the railway in Guatemala. The Government, however, gave great attention to the improvement of the cart roads (*carreteras*) throughout the country. The immense internal traffic of the Republic demands such means of communication, and when the present plans are completed, Salvador will have one of the best systems of highways in all Latin America.

FINANCE.

According to the message of President FIGUEROA, transmitted to the National Assembly on February 21, 1910, the national revenues for the year 1909 amounted to 10,716,098.65 pesos silver. The revenues for the year 1908 were 10,676,338.92 pesos silver, showing an increase in revenue for the year of 39,759.72 pesos. Estimating the premium on gold at 165, \$1 gold equals \$2.65 silver.

The following table shows the origin of the different sources of revenue for the two years:

	1908.	1909.
	<i>Pesos.</i>	<i>Pesos.</i>
Import duties.....	6,096,399.68	5,841,734.02
Export duties.....	772,726.81	882,380.78
Liquor taxes.....	2,435,224.85	2,377,423.25
Stamp-paper taxes.....	260,886.29	278,782.02
Sundry taxes.....	309,495.90	391,717.10
Servicios.....	792,605.39	944,061.48
Total.....	10,676,338.92	10,716,098.65

There was a decrease in import taxes of 254,665.66 pesos, and in liquor taxes of 57,801.60 pesos. There was an increase in export taxes of 109,653.97 pesos, in stamp-paper taxes of 8,895.73 pesos, and in servicios of 151,456.09 pesos.

The expenditures for the year amounted to \$11,856,002.31 pesos as compared with 12,656,656.61 pesos for the year 1908, showing a decrease in the expenditures of 800,654.30 pesos. There were

increases of expenditures in the government departments, except those of the Presidency, of the Treasury, and of Public Credit. The decrease in the last-mentioned department amounted to 1,860,744.60 pesos. The increase was the greatest in the Ministry of War and Marine, 504,538.33 pesos, in the Ministry of Fomento, 238,250.98 pesos, and in the Department of Charities, 150,198.57 pesos.

The following table shows the expenditures for the two years:

	1908.	1909.
	<i>Pesos.</i>	<i>Pesos.</i>
National Assembly.....	39,571. 11	48,393. 81
Presidency.....	38,090. 00	23,895. 00
Department of Government.....	1,708,784. 54	1,808,006. 28
Department of Fomento.....	1,004,716. 07	1,242,967. 05
Department of Public Instruction.....	451,542. 31	494,593. 82
Department of Foreign Affairs.....	139,459. 44	168,290. 78
Department of Justice.....	466,317. 31	488,240. 58
Department of Charities.....	377,014. 08	527,212. 65
Department of Treasury.....	639,952. 86	619,999. 72
Department of Public Credit.....	5,068,668. 80	3,207,924. 20
Department of War and Marine.....	2,721,940. 09	3,226,478. 42
Total.....	12,656,656. 61	11,856,002. 31

In his message the President announces that a statement covering the public debt will be transmitted to the National Assembly. The amount of this debt has been stated to be as follows, for January 1, 1909:

Gold liabilities:	Gold.
Sundry cash creditors.....	\$885,517
National indemnity bonds.....	73,656
External loan.....	8,572,146
Total.....	9,531,319
Silver liabilities:	Pesos silver.
Sundry creditors.....	1,417,268
Administrative salaries, expenses, etc.....	1,027,978
Salvador bonds (principal and interest).....	3,508,686
Various bonds.....	161,277
Deposits.....	3,361
Funds to be applied to special purposes.....	140,626
Total.....	6,260,196

COMMERCE.

The foreign trade of Salvador for the year 1909 was: Imports, \$4,176,931.56, and exports, 16,963,575.30 pesos silver, \$6,361,340.72 gold.

This gives the total value of the foreign trade of Salvador as \$10,578,280.72, and shows a balance of trade in favor of the Republic of \$2,224,417.60.

The imports by countries of origin were as follows:

Great Britain.....	\$1, 438, 613. 90
United States.....	1, 344, 315. 79
Germany.....	482, 341. 70
France.....	285, 169. 66
Italy.....	157, 707. 99
Belgium.....	104, 550. 13
Spain.....	82, 473. 91
Japan.....	69, 061. 82
China.....	64, 766. 70
Holland.....	38, 196. 40
Honduras.....	36, 386. 69
Austria-Hungary.....	16, 583. 87
Nicaragua.....	12, 368. 42
Sweden.....	12, 000. 33
Mexico.....	8, 202. 74
Ecuador.....	7, 075. 00
Denmark.....	5, 425. 64
Switzerland.....	3, 443. 82
India.....	2, 978. 01
Cuba.....	1, 597. 62
Other countries.....	3, 671. 42
Total.....	4, 176, 931. 56

By articles, the imports were as follows:

Cotton:	
Manufactured.....	\$1, 492, 999. 74
Yarn.....	128, 362. 99
Flour.....	260, 708. 27
Hardware.....	199, 427. 10
Drugs and medicines.....	193, 213. 82
Boots and shoes.....	145, 961. 76
Coffee sacks.....	117, 904. 06
Foodstuffs.....	102, 863. 38
Silk:	
Manufactured.....	89, 098. 85
Raw.....	22, 790. 06
Soap and candle grease.....	89, 059. 65
Wines.....	78, 041. 25
Coin.....	74, 897. 22
Woolen textiles and manufactures.....	68, 304. 63
Yarn.....	210. 36
Machinery.....	53, 149. 39
Matches.....	34, 165. 84
Crockery.....	32, 466. 93
Hats of various classes.....	29, 099. 49
Paper and stationery.....	26, 329. 04
Liquors.....	25, 389. 06
Glassware.....	23, 811. 91
Illuminating oils.....	23, 645. 79
Beer and soft drinks.....	22, 299. 32
Haberdashery.....	22, 217. 36
Perfumery.....	17, 563. 47

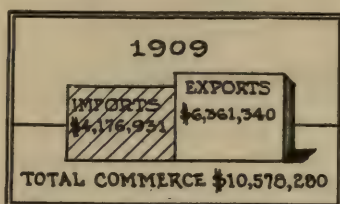
SALVADOR

• COMMERCE - 1909 •

GREAT BRITAIN	\$1,438,613
UNITED STATES	1,344,315
GERMANY	482,341
FRANCE	285,169
ITALY	157,707
BELGIUM	104,550
SPAIN	82,473
JAPAN	69,061
CHINA	64,766
HOLLAND	38,196
HONDURAS	36,386
AUSTRIA-HUNGARY	16,583
NICARAGUA	12,368
SWEDEN	12,000
MEXICO	8,202
ECUADOR	7,075
OTHER COUNTRIES	17,116

IMPORTS

BY COUNTRIES OF ORIGIN

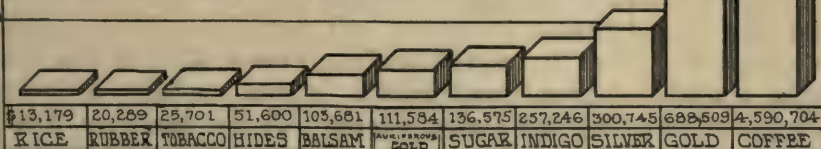


UNITED STATES	\$1,879,453
FRANCE	1,629,063
GERMANY	1,061,315
GREAT BRITAIN	449,894
ITALY	430,811
AUSTRIA-HUNGARY	317,021
SPAIN	214,157
PANAMA	118,321
PERU	45,817
HOLLAND	43,921
SWEDEN	40,614
ECUADOR	28,928
NORWAY	28,161
COSTA RICA	27,977
CHILE	12,100
HONDURAS	9,948
NICARAGUA	9,082
BELGIUM	6,037
OTHER COUNTRIES	8,711

EXPORTS

BY COUNTRIES OF DESTINATION

PRINCIPAL ARTICLES EXPORTED



Butter and cheese.....	\$13, 045. 65
Furniture.....	12, 006. 41
Linen:	
Textiles and manufactures.....	11, 621. 52
Yarn.....	109. 85
Lime and cement.....	11, 472. 83
Marble.....	7, 842. 75
Fancy articles.....	7, 123. 66
Straw hats.....	7, 075. 00
Books.....	6, 841. 93
Spices and tea.....	4, 804. 45
Canvas.....	4, 780. 34
Jewelry.....	4, 270. 75
Stearine candles.....	3, 542. 98
Mineral water.....	3, 352. 55
Manufactured leather (other than shoes).....	3, 312. 14
Wood and cork.....	3, 252. 65
Fertilizers.....	2, 661. 50
Tobacco:	
Manufactured.....	1, 363. 01
Not manufactured.....	386. 00
Indian corn.....	1, 728. 98
Free imports.....	389, 087. 12
Miscellaneous.....	302, 268. 75
Total.....	4, 176, 931. 56

The cotton yarn was imported mostly from Great Britain. The value of cotton textiles imported from Great Britain was \$841,542; from the United States, \$366,222; from Italy, \$84,519; and from Germany, \$79,247. France, Spain, Belgium, and other countries also contributed. Practically all of the flour was from the United States. Of the mineral waters imported, about one-half was from Germany, and nearly all the remainder from France and Great Britain. The principal import of fancy articles was from France and Germany. Most of the free imports (not specified) were from the United States and Great Britain. Of the lime and cement, Germany sent \$4,062, Italy \$3,577, Belgium \$2,667, and the United States \$929. Of boots and shoes, imports from the United States lead with \$95,556; Germany, \$40,565; and other countries lesser amounts. One-half of the beer and soft drinks came from Germany, \$10,493; United States was second, \$4,881; and Denmark third, with \$3,261. Foodstuffs, Great Britain, \$45,596; United States, \$29,094; and France, \$10,593.

About two-thirds of the glassware came from Germany and \$3,780 from the United States. Of drugs and medicines, about one-half were from the United States, \$56,899 from France, \$25,845 from Germany, and \$14,651 from Great Britain. About one-third of the tea and spices was from the United States. Of the hardware, Great Britain led with \$74,196, Germany second, \$59,811, and the United States third, \$53,147. Over two-thirds of all the matches came from Germany, and the remainder, excepting a small amount, from Sweden.

The jewelry was principally from Italy and France. About one-half of the woolen textiles was from Great Britain, \$12,963 from France, and \$11,752 from Italy. About one-third of the books were from France and most of the remainder from Great Britain, Germany, and the United States. France sent \$15,584 of liquors, United States \$4,660, and Spain \$2,835. The linen textiles came from Belgium, Great Britain, and Germany for the most part. The great bulk of the crockery was from Germany, \$25,388; Japan sent \$3,332, Great Britain \$1,191, and France \$1,071. Nearly all of the machinery was from the United States, \$46,799; next in order came Great Britain, \$3,521, and France \$1,484. The bulk of the marble was from Italy, and the remainder, amounting to \$1,440, from the United States. Nearly all of the soap and candle grease came from Belgium and Holland—\$50,826 from the former and \$30,263 from the latter. About one-half of the haberdashery was from Germany, and next in order was France with \$3,586, United States \$2,520, and Italy \$2,127.

The principal import of furniture was from the United States, \$7,124. The paper and stationery was mostly from Germany, \$13,217. All of the illuminating oil came from the United States, and most of the perfumery was from France. Of the butter and cheese Honduras sent \$4,950, Nicaragua \$4,269, Denmark \$1,571, and United States \$816. Most of the coffee sacks came from Great Britain, \$99,984, Germany sending \$6,865. Raw silk came from China, and of the silk textiles, \$50,356 from Japan, \$34,730 from China, and \$1,187 from Switzerland. Straw hats were all from Ecuador, and other hats principally from Italy. Manufactured tobacco came from Cuba, India, and Mexico. Of the wines, \$28,679 were from France, \$16,252 from Spain, \$14,941 from the United States, and \$10,242 from Germany.

The exports of Salvador, by the principal countries of procedure, were:

United States.....	\$1, 879, 453. 87
France.....	1, 629, 063. 15
Germany.....	1, 061, 315. 73
Great Britain.....	449, 894. 35
Italy.....	430, 811. 49
Austria-Hungary.....	317, 021. 07
Spain.....	214, 157. 51
Panama.....	118, 321. 95
Peru.....	45, 817. 30
Holland.....	43, 921. 74
Sweden.....	40, 614. 64
Ecuador.....	28, 928. 65
Norway.....	28, 161. 11
Costa Rica.....	27, 977. 77
Chile.....	12, 100. 1
Honduras.....	9, 948. 51

Nicaragua.....	\$9,082.99
Belgium.....	6,037.50
Other countries.....	8,711.26
Total.....	6,361,340.72

The principal exports, by articles, were:

Articles.	Amount.	Value.
	<i>Pounds.</i>	
Coffee.....	63,330,077	\$4,590,704.65
Gold (bars).....		688,509.54
Silver (bars).....		300,745.35
Auriferous gold.....		111,584.14
Indigo.....	418,969	257,246.61
Sugar.....	3,701,183	136,575.00
Balsam.....	143,098	103,681.12
Cattle hides.....	344,289	51,600.07
Unmanufactured tobacco.....	139,491	25,701.70
Rubber.....	65,826	20,289.84
Rice.....	490,472	13,179.91

The principal exports to the United States were: Coffee, worth \$770,200.50; gold, \$688,509.54; and silver, \$300,745.35. The principal export to France was coffee, \$1,601,013.33. To Germany the principal export was also coffee, \$937,494.37. Cattle hides worth about \$40,000 and indigo of about \$26,000 were also exported to Germany. Coffee, \$196,341.75; auriferous silver, \$111,584.25; and indigo, \$101,185.50, were the principal exports to Great Britain. The only export to Italy was coffee, \$430,811.48. The bulk of the sugar went to Panama and most of the rubber to Germany and France.

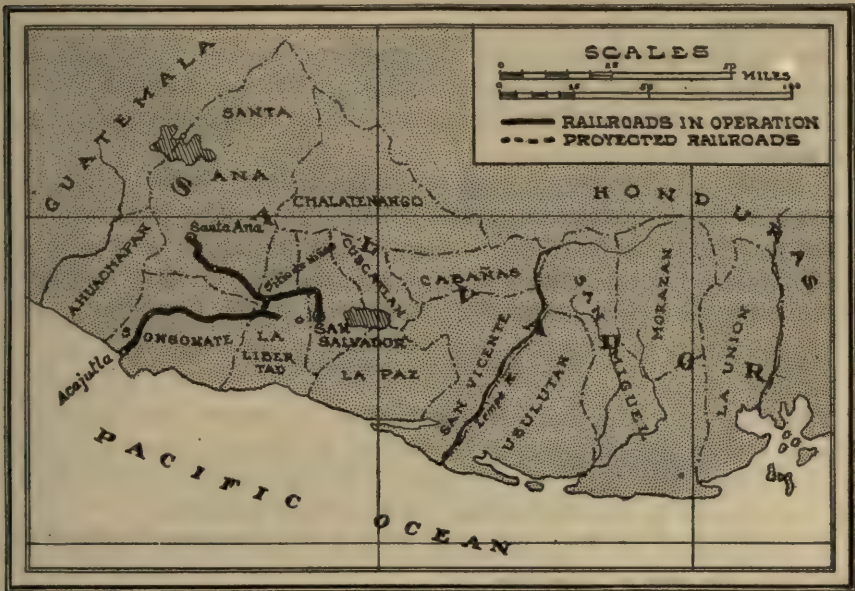
INDUSTRIES.

The interests of the country are essentially agricultural, the principal crop being coffee, of which the annual output amounts to 37,500 tons, valued at approximately \$5,000,000. A number of other products are cultivated more or less extensively, among them cacao, rubber, balsam, sugar, indigo, tobacco, and bananas. Formerly cotton ranked as a crop of importance among the agricultural products of the Republic, about \$700,000 of this staple being exported, but shipments have gradually declined, the crop yielding in importance first to indigo and later to coffee. The forests of the Republic contain cabinet and hard woods of different grades and qualities, mahogany, cedar, mulberry, ironwood, walnut, and laurel; also dyewoods, barks, balsams, gums, and resins. Among the textile fibers produced are henequen, ramie, escobilla, cocoanut, and capulin. Cattle and horses are bred with profit, especially near the seacoast.

Mining is a profitable branch of enterprise conducted to some extent in different sections. Numerous deposits of copper, iron, lead, gold, and silver are worked, and other minerals have been located in different parts of the country. The richest mineral sections of the

Republic are the Department of Santa Ana, where veins of iron, copper, lead, gold, and silver ores are known to exist, particularly lead and copper, and San Miguel, where active mining operations are conducted.

The manufacturing industries, though of less importance, have attained a degree of progress in the following articles: Fiber ropes and hammocks, cigars and cigarettes made of native tobacco, palm-leaf mats and hats, saddlery, confectionery, and dairy products. The manufacture of textiles is successfully conducted, the value of the cotton and silk tissues made in the country amounting to about \$100,000 per year. The cotton thread employed in the elaboration



MAP SHOWING RAILROADS IN OPERATION, AND PROJECTED LINES, IN SALVADOR.

of the product comes principally from England. Forge iron, furniture, boots and shoes, and tanned leather are also manufactured to some extent.

RAILWAYS AND INTERIOR WATERWAYS.

The railways of Salvador in 1909 comprised 156 kilometers (97 miles) of line in operation, all of narrow gauge. There is a section under contract between Santa Ana and the Guatemalan frontier, which will form when completed part of the great Pan-American system that will ultimately place all the Republics of the mainland of the Western Hemisphere in railway communication with each other. The longest railway in the country runs from the port of Acajutla on the Pacific coast to the city of San Salvador, the capital of the Re-

public, a distance of 105 kilometers (65 miles). This line, which has 14 stations from terminal to terminal, is the most important railway of the nation. Another line, 40 kilometers (25 miles) in length, connects Santa Ana, the second city of the Republic, with Sitio del Niño. A short railway runs from the city of San Salvador to Santo Tecla, a distance of 18 kilometers (11 miles). The operation of the railway from La Ceiba to Ateos, a distance of 20 miles, has been temporarily abandoned. The branch line between San Miguel and La Union, 62 kilometers (38 miles), is now under construction. The Salvador Railway Company has established a weekly steamer service between Acajutla and Salina Cruz for the transportation of freight and passengers, securing thereby direct service with Mexico, the United States, and Europe.

Among the numerous rivers of Salvador the most important are the Lempa, the Paza, and the San Miguel, the first mentioned flowing through the entire territory of the Republic, but all navigable only for small craft.

A number of picturesque lakes are in the country, Lake Guijar, the largest, being 15 miles long and 5 miles wide. Lake Ilopango is 9 miles long and 3 miles wide. All are navigable for small vessels of light draft. Lake Coatepeque is a popular resort, many cottages there being owned by prominent merchants of the Republic.

MEANS OF APPROACH.

The Republic of Salvador is accessible by water only from the Pacific Ocean, its ports being La Union, El Triunfo, La Concordia, La Libertad, and Acajutla, of which the last named is the most important and is the commercial center of the Republic.

The capital of the Republic, San Salvador, can best be reached by rail from the port of Acajutla.

Several steamship lines, which touch at points on the west coast between Vancouver, British Columbia, and Panama, call at the ports of Salvador. The Salvador Railway has established a line of steamers which ply between Acajutla and Salina Cruz, Mexico, making the trip in thirty-six hours.

From Honduras communication is had by little gasoline or sailing vessels plying irregularly from the port of Amapala to that of La Union; or by well-beaten trails into San Miguel from Tegucigalpa or the western portion of the Republic. From Guatemala there are two cart roads leading to Santa Ana, the most prominent town near the frontier, one from Zacapa on the Guatemala Northern Railway, in about the same direction that the projected railway line will follow, and another, from Santa Maria, which is practically an extension of the Guatemala Central Railroad.

During the first nine months of 1909, 463 steamers and 89 sailing vessels, having a capacity of 888,978 tons, entered the ports of Acajutla, La Libertad, La Union, and El Triunfo. Of these vessels 245 were North American, 153 German, 79 Salvadorean, 74 Honduran, and 1 Costa Rican. The North American vessels represented a capacity of 476,945 tons, and the German 411,229.

POSTS AND TELEGRAPHS.

The Republic of Salvador is an adherent to the International Postal Union. The latest figures available showed more than 82 post-offices in operation, with a personnel of about 362 employees. The number of pieces of mail matter handled in Salvador in 1909, consisting of letters, postal cards, printed matter, parcels, and samples, was 4,927,532, as compared with 4,760,329 pieces in 1908.

The Government of Salvador has not failed to bestow proper attention on the betterment and extension of the postal and telegraph services of the Republic in carrying out its general scheme of public improvements. Notwithstanding some natural difficulties encountered, it has been possible to extend the benefits of quick communication by post and wire to almost every hamlet of the country districts.

According to the Report of the Director-General of Telegraphs and Telephones, there are now 179 telegraph offices and 2,479 miles of telegraph lines in the Republic. Telephone stations number 137, with 2,049 miles of line.

EDUCATION.

The educational system of Salvador provides for primary, secondary, high school, professional, and scientific instruction. In round numbers there are 600 primary schools in the Republic having an enrollment of 35,000 pupils, an average attendance of 25,000, and a teaching staff of 1,100. National state normal schools have been established, the one for girls graduating about 175 teachers yearly. Special instruction is given in the National School of Agriculture and the Practical School of Arts and Trades. The higher branches are taught in the National Institute of San Salvador and in private institutions working under the authority of the Government. Besides these, several municipalities maintain from their own funds schools of the lower grades, but in harmony with the National system.

The National Institute, which has a government appropriation of about \$10,000 per annum and is provided with substantial and well-equipped buildings, has a dormitory for 50 students and accommodations for about 200 outside students. Faculties of medicine, pharmacy, and natural sciences and dental surgery, a school of law, and of engineering are supported by the Government in the National University. The course in the medical school covers a period of six

years and is very complete and thorough. A large library is connected with the law school, an able faculty is employed, the instruction is very comprehensive, and the diplomas issued by the institution enjoy a high standing throughout Latin America. The Government maintains in a liberal manner its excellent educational system and does all in its power to encourage and develop the same.

Considerable sums of money have, in addition, been spent in the construction of new schoolhouses and in the repair of others.

GENERAL INFORMATION.

A tuberculosis sanitarium has been established in the vicinity of San Salvador. The open-air treatment will be employed, and methods for the alleviation and cure of consumption. The expenses of the sanitarium are to be borne from appropriations by the federal and municipal governments, contributions of industrial companies, and donations of benevolent persons and institutions. A library will be maintained for the use of the patients, and all possible measures will be employed to alleviate the condition of resident invalids.

In regard to foreign relations it was stated by President FIGUEROA in his annual message that intercourse with other nations continued to be characterized by a spirit of sincere cordiality and friendliness. As a proof of this harmony the invitations received by the Republic to send delegates to attend the various international congresses and conferences are cited.

The construction of public works, such as roads, streets, and school buildings, together with waterworks for the larger cities, has been pushed with as great vigor as possible under the circumstances. One of the more important public works which will be undertaken in the near future is the building of a new national theater which it is proposed to make an edifice of such architectural beauty as will reflect great credit on the Republic.

One of the most timely improvements made during the past year in the city of San Salvador was the construction of the broad and beautiful avenue of Santa Tecla, which unites the latter place, locally known as the "City of Flowers," with the most picturesque part of the suburbs of the capital of the nation.



UNITED STATES

July 4, 1776, the date of the signing of the Declaration of Independence, is taken as the birth date of the Republic. At that time the population of the country, about 3,000,000, scattered among 13 colonies, was settled in a narrow fringe along the Atlantic seaboard from near what is now the northeastern boundary to about the southern line of the State of Georgia. In places the settlements extended for a few hundred miles toward the interior, but for the most part they were not beyond Atlantic tidewater. The area of the country was undetermined for its western frontier was a wilderness.

Twenty-four years afterwards—in 1800—the population by actual count amounted to 5,308,483, and the general outline of the northern, western, and southern boundaries having been determined, its area was 843,246 square miles. This gave a population of 6.3 to the square mile.

The public debt then amounted to something over \$80,000,000, and the total amount of gold and silver in circulation was about \$16,000,000.

One hundred and nine years afterwards, in 1909, and one hundred and thirty-three years from the foundation of the Republic, the area of the country, exclusive of Alaska and the outlying islands, was 3,026,789 square miles; the population 88,566,034; the public debt over \$1,000,000,000, and the gold and silver circulation \$803,657,396, of which nearly \$600,000,000 was gold. In 1909 there were 29.16 persons to the square mile.

Prior to 1821 the statistics of foreign immigration into the United States were incomplete, and no reliable deductions can be made from them. The immigration of permanent settlers, however, was very small. Since 1821, up to the close of the year 1909, 27,025,893 foreigners, nearly all of whom became permanent residents of the country, arrived within the borders of the United States. Of this number 7,747,325 came from the United Kingdom, more than half of whom were from Ireland; 5,358,265 were from Germany; 2,918,064 from Austria-Hungary; 2,329,109 from Russia; and 1,172,177 from British North America. Every country in Europe contributed immigration to the United States. The total of European immigration is 24,605,362. Exclusive of British North America, North and South America, including the islands, have contributed 321,779; Asia, 605,259; Africa, Oceania, and the rest of the world, 288,134.

Two-thirds of the immigration from the Dual Empire was from Hungary, and has arrived within the last decade. The immigration from Italy is also recent, over 1,800,000 having arrived in the coun-

try since the beginning of 1901. The immigration from Russia is for the most part Jewish, over 1,400,000 coming since the beginning of 1901.

FINANCE.

The ordinary receipts of the Federal Government for the year 1909 were \$637,773,165.36. The ordinary disbursements for the same period were \$670,506,889.07.

The ordinary receipts of the Government were derived from customs, \$329,343,474.99; internal revenue, \$254,977,391.26; and miscellaneous, \$53,452,299.11. The miscellaneous receipts included, among other items, coinage, sales of public lands, consular and other fees, taxes on national banks, reimbursements by railways, immigrant fund, etc.

The ordinary expenditures were: Civil and miscellaneous, \$186,153,222.85; War Department, \$164,386,429.45; Navy Department, \$121,472,363.80; Indians, \$13,977,774.99; pensions, \$162,799,115.19; and interest on public debt, \$21,717,982.79.

The customs receipts for the fiscal year ending June 30, 1910, were \$333,043,800, the greatest amount ever received by the Government in any one year from this particular source of revenue.

The receipts and expenditures for the year 1908 were: Customs, \$267,107,651.20; internal revenue, \$245,532,114.94; and miscellaneous, \$60,344,226.55; total of ordinary receipts, \$572,983,992.69.

The disbursements were: Civil and miscellaneous, \$182,373,598.73; War Department, \$156,904,045.47; Navy Department, \$118,513,709.63; Indians, \$16,231,048.73; pensions, \$160,494,018.65; and miscellaneous, \$21,565,609.81; total, \$656,082,031.02.

The expenditures on account of the Panama Canal, not included in the above statement, for the year 1909 amounted to \$33,521,342.18, which was \$415,000 less than the expenditures for the preceding year.

The receipts from the Post-Office Department, also not included in the above statement for the fiscal year ending June 30, 1909, were \$203,562,383.07. The expenditures for the same period were \$223,063,845.47, showing a deficit in this department of over \$19,500,000.

On June 30, 1910, the total outstanding debt of the United States was \$1,296,939,969.04. Of this, \$913,317,490 represented the interest-bearing debt, as follows:

Debt.	When issued.	Rate.	Total outstanding.
Consols of 1930.....	1900	2 per cent.....	\$646,250,150
Loan of 1908-1918.....	1898	3 per cent.....	63,945,460
Loan of 1925.....	1895-1896	4 per cent.....	118,489,900
Panama canal loan:			
Series 1906.....	1906	2 per cent.....	54,631,980
Series 1908.....	1908	do.....	30,000,000
Aggregate of interest-bearing debt.....			913,317,490

Of the total debt, \$2,124,895.26 represents matured bonds, on which interest has ceased, but which bonds have not yet been presented for payment.

Of the total debt, \$381,497,583.78 represents the obligations of the United States, not offset by cash in the Treasury, on account of paper-money circulation.

Not included in the statement of the outstanding obligations of the United States are the gold and silver certificates and Treasury notes which, together with the national-bank notes, make up the bulk of the paper-money circulation of the country. The amount of gold certificates outstanding was \$862,936,869, silver certificates \$489,117,000, Treasury notes \$3,672,000; total, \$1,355,725,869. These certificates and notes are secured by deposits of gold and silver coin and bullion in the Treasury of the United States to the amount of the issue.

The cash in the Treasury on June 30, 1910, not including trust funds held as security for paper circulation, amounted to \$250,490,783.79. Of this amount, \$150,000,000 was the reserve fund, and the remainder represents the balance of the general fund.

In addition to gold and silver certificates, the actual gold and silver circulation for the year 1909 amounted to about \$800,000,000. Of this, about \$600,000,000 was gold.

COMMERCE.

The foreign trade of the United States for the year 1909 amounted to \$3,203,815,851, of which \$1,475,612,580 was imports and \$1,728,203,271 was exports. These figures show a balance of trade in favor of the Republic of \$252,590,691. The figures for the year 1908 were: Imports, \$1,116,374,087; exports, \$1,752,835,447; balance of trade, \$636,461,360. There was an increase in the imports for the year amounting to \$359,238,493 and a loss in exports of \$24,632,176. The loss in the trade balance was therefore \$383,870,669.

The imports by world divisions for the two years were as follows:

	1908. ^a	1909. ^a		1908. ^a	1909. ^a
Europe.....	\$548,882,652	\$763,704,486	Oceania.....	\$23,410,637	\$32,537,638
North America.....	224,623,181	277,863,210	Africa.....	15,153,268	17,588,029
South America.....	132,431,434	193,202,131			
Asia.....	171,872,915	190,717,086	Total.....	1,116,374,087	1,475,612,580

^a Of the imports for 1909, \$699,799,771 were free imports and \$775,812,809 paid customs duties. The figures for 1908 were: Free, \$504,644,541; dutiable, \$611,729,546.

The principal European countries contributing were: The United Kingdom, \$247,474,104; Germany, \$161,951,673; France, \$132,069,748; Italy, \$50,149,434; Belgium, \$36,236,568; Holland, \$30,905,712; and Switzerland, \$25,814,662.

As compared with the preceding year, there was a gain in imports from the United Kingdom of about \$75,000,000; France, \$43,000,000; Germany, \$23,000,000; Belgium, \$16,000,000; Holland, \$11,000,000; Italy, \$7,000,000; Switzerland, \$4,000,000.

The principal countries of North America from which imports were received were: Cuba, \$107,334,716; Canada, \$87,311,881; Mexico, \$52,578,454; Central America, \$12,461,596; British West Indies, \$11,359,440. The gain in Cuban imports was about \$28,000,000; in Canadian, about \$16,000,000; in Mexican, \$10,000,000; in Central American, \$1,000,000; and in British West Indian, \$500,000.

The principal countries of South America contributing to the United States imports were: Brazil, \$117,062,725; Argentina, \$27,080,231; Chile, \$16,700,994; Venezuela, \$7,772,851; Colombia, \$7,303,503; Peru, \$7,164,264; and Uruguay, \$5,708,814. The gain in imports from Brazil amounted to about \$36,000,000; from Argentina, about \$14,000,000; from Chile, about \$4,000,000; from Colombia, about \$500,000; from Venezuela, about \$700,000; from Peru, about \$1,300,000; and from Uruguay, about \$3,600,000.

The principal Asiatic countries contributing to United States imports were: The British East Indies, including India, Straits Settlements, and islands, but excepting Hongkong, \$69,438,375; Japan, \$68,116,656; Chinese Empire, including Hongkong and British, French, German, and Japanese leased territory, \$31,765,303; and the Dutch East Indies, \$10,389,864. The increase in imports from the British East Indies was about \$16,000,000; from Japan, about \$4,000,000; from China, about \$7,000,000; and from the Dutch East Indies, \$12,000. Australia and Tasmania furnished \$14,305,201 in 1909, and the Philippine Islands, \$13,556,916. This was a gain for Australia and Tasmania of nearly \$5,000,000, and for the Philippines of over \$4,000,000.

The two African countries which furnished the great bulk of imports to the United States were: Egypt, \$12,665,454, a gain of \$600,000; and British Africa, \$3,180,909, a gain of \$700,000.

The principal articles of import into the United States for the year 1909 were as follows:

Hides and skins.....	\$103,758,277
Sugar.....	90,296,895
Coffee.....	86,524,006
Rubber, crude.....	83,682,013
Raw silk.....	75,512,401
Cotton, manufactured.....	68,380,700
Wool, unmanufactured.....	55,530,366
Manufactured fibers (except cotton and linen).....	54,860,698
Wood and manufactures.....	50,294,509
Diamonds and other precious stones.....	43,620,591
Copper.....	39,642,679
Fruits and nuts.....	34,603,684

Unmanufactured fibers (except cotton and linen).....	\$33, 511, 696
Silk manufactures.....	32, 963, 162
Iron and steel and manufactures.....	30, 516, 536
Tin, unmanufactured.....	27, 559, 937
Spirits, wines, etc.....	26, 745, 789
Leaf tobacco.....	25, 897, 650
Furs.....	24, 045, 678
Wool, manufactured.....	22, 052, 712
Oils.....	18, 510, 117
Paper and manufactures.....	18, 149, 333
Art works.....	16, 845, 919
Tea.....	16, 553, 032
Leather and manufactures.....	16, 270, 406
Cotton, raw.....	15, 058, 262
Cacao, crude.....	13, 358, 534
Nitrate of soda.....	13, 281, 629
Gums.....	13, 241, 060
Vegetables.....	13, 189, 603
Fish.....	12, 748, 378
Feathers.....	12, 005, 739
Earthen, stone, and china ware.....	10, 542, 857

Of the art works imported, \$7,563,780 were from France, and \$6,629,693 from England.

Of gums, the principal were: Shellac, \$3,925,962; varnish gums, \$2,016,576; and chicle, \$2,142,609.

About \$4,400,000 worth of cacao was from South America, and \$3,500,000 from the West Indies.

Of coffee, over \$66,000,000 was imported from Brazil, over \$9,000,000 from other South American countries, and \$4,000,000 from Central America.

Copper ore to the value of over \$9,000,000 came principally from Mexico and South America. Refined copper valued at over \$9,000,000 was imported from Mexico, over \$4,000,000 from Peru, \$3,400,000 from the United Kingdom, and over \$3,000,000 from Japan.

The principal import of raw cotton was from Egypt, \$12,000,000. Of manufactured cotton the principal imports were: Cotton cloths, \$10,726,461, of which \$8,645,000 came from the United Kingdom; white goods, \$7,486,932, of which \$6,971,515 came from Germany; laces, embroideries, etc., \$37,440,210, of which \$14,460,876 came from Switzerland, over \$9,000,000 from France, nearly \$7,000,000 from the United Kingdom, and \$6,000,000 from Germany.

The value of uncut diamonds imported was nearly \$9,000,000, of which more than half came from the United Kingdom and nearly \$2,000,000 from Belgium. Cut diamonds worth over \$27,000,000 were imported, over \$11,300,000 coming from Holland, over \$10,300,000 from Belgium, and nearly \$4,000,000 from France. Other precious stones to the amount of \$6,970,864 were imported, of which \$2,417,723 were from France and over \$1,000,000 from the United Kingdom.

The principal imports of earthen, stone, and china ware were from Germany, \$3,721,000; next in order came the United Kingdom, \$2,700,000, and France, \$1,800,000.

Raw flax was imported to the amount of \$2,712,469, nearly one-half of which came from the United Kingdom; jute to the value of \$10,216,427, of which about two-thirds came from the East Indies; manila, \$10,216,427, practically all from the Philippines; and sisal, \$10,800,481, practically all from Mexico.

Of manufactured fibers, burlaps, jute, and yarn worth over \$16,000,000 came from the East Indies, and flax, hemp, and ramie goods, worth nearly \$17,000,000, came from the United Kingdom.

Of fruits and nuts, the banana import was \$11,892,073, of which over \$5,800,000 was from Central America, \$4,700,000 from the British West Indies, and nearly \$1,000,000 from Cuba. Of lemons valued at \$2,741,000, practically the whole importation was from Italy. The walnut importation was worth over \$3,000,000.

The value of imported unmanufactured furs was \$12,706,952. Over one-third of this amount was from Germany, and \$2,820,000 from the United Kingdom. Manufactured furs were imported to the value of \$11,330,726; of this, \$4,000,000 was from Germany, \$3,800,000 from France, and \$1,671,000 from the United Kingdom.

Under hides and skins, the goatskin import was \$29,828,000, of which \$10,700,000 was from the East Indies, and about \$2,500,000 each from Mexico, Brazil, and the Chinese Empire. The cattle hides imported were worth \$38,161,362, of which amount \$17,586,035 was from South America. The calfskin import was worth \$12,272,774.

Of the rubber imports, over \$43,000,000 was from Brazil, \$13,900,000 from the United Kingdom, \$7,250,000 from Mexico, and \$4,225,000 from Germany.

Of iron and steel and manufactures thereof, iron ore was imported worth \$4,630,084, more than half of which came from Cuba, and pig iron worth over \$5,000,000, the great bulk coming from the United Kingdom. Tin plates worth \$3,740,527 came from the United Kingdom.

The principal leather import was gloves, \$8,140,221. Of this amount, over \$3,000,000 each came from France and Germany.

Under oils, \$2,750,000 worth of cocoanut oil was imported, \$4,800,000 worth of olive oil, and \$3,850,000 worth of palm oil.

Of raw silk, \$42,306,000 came from Japan, \$17,837,000 from Italy, and \$11,042,000 from China. Of silk manufactures, about one-half came from France, over \$6,000,000 from Germany, \$4,422,000 from Switzerland, \$2,850,000 from Japan, and \$2,585,000 from the United Kingdom.

The total amount of malt liquors imported was \$3,300,375, and of spirits, \$8,546,065. Of the latter, \$3,670,000 came from France,

and \$2,746,601 from Great Britain. Sparkling wines worth over \$8,500,000 were imported, practically all from France. Still wines worth \$6,211,567 came from France, Germany, and Italy in about equal quantities.

Of the sugar importation, \$78,427,206 came from Cuba, \$6,195,539 from the Dutch East Indies, and \$2,321,297 from the Philippines.

Tea worth \$7,600,000 was imported from Japan, \$2,787,000 from the United Kingdom, and \$3,336,000 from China.

Tin came from the United Kingdom to the amount of \$14,902,944, and from the Straits Settlements to the amount of \$11,243,863.

Leaf tobacco worth \$14,794,000 was imported from Cuba, \$5,665,000 from Holland, and \$2,127,000 from Turkey.

Wool was imported in three classes: "Clothing wool" worth over \$31,000,000, of which \$12,550,000 came from the United Kingdom, \$8,700,000 from Australia, and \$6,000,000 from Argentina; "combing wool" worth \$7,655,157, nearly all from the United Kingdom; "carpet wool" worth \$16,706,728, \$4,500,000 from the United Kingdom, \$3,918,000 from China, nearly \$2,000,000 from Russia, and \$1,500,000 from Turkey. The amount of wool manufactures imported was \$22,058,712. Of this, over \$4,500,000 was carpets, about \$1,000,000 from Asia, and the remainder from Europe. Nearly \$6,000,000 of wool cloth was imported, of which \$3,380,000 was from the United Kingdom, \$1,500,000 from Germany, and \$600,000 from Belgium. Of \$8,637,000 of women's and children's dress goods, \$3,580,000 came from the United Kingdom, \$2,604,000 from France, and \$2,407,000 from Germany.

The United States exports by world divisions for the two years, 1908 and 1909, were as follows:

	1908.	1909.		1908.	1909.
Europe.....	\$1,233,974,092	\$1,169,672,326	Oceania.....	\$43,210,135	\$45,199,431
North America.....	294,002,660	344,767,613	Africa.....	18,408,774	17,124,298
South America.....	76,597,635	83,509,047			
Asia.....	86,642,151	67,930,556	Total.....	1,752,835,447	1,728,203,271

There was a loss in exports to Europe of over \$64,300,000, to Asia of nearly \$19,000,000, and to Africa of nearly \$1,300,000. On the contrary, there was a gain in exports to other countries in both the Americas, over \$50,700,000 to North America and nearly \$7,000,000 to South America; and a gain of nearly \$2,000,000 to Oceania.

The principal European countries receiving American exports for the year 1909 were: The United Kingdom, \$521,281,999; Germany, \$247,310,084; France, \$126,361,959; Holland, \$89,121,124; Italy, \$56,850,502; Belgium, \$44,447,380; Spain, \$17,222,347; Austria-Hungary, \$15,883,968; Russia, \$15,247,047; Denmark, \$14,688,819.

Compared with the preceding year, there was a loss in the exports to the United Kingdom of \$33,460,000, to Germany of \$10,710,000, to Holland of \$9,210,000, to Italy of \$4,185,000, to Belgium of \$3,185,000, to Spain of \$4,080,000, to Russia of \$2,714,000, and to Denmark of \$4,555,000. There was a gain in exports to France of \$9,507,000, and to Austria-Hungary of \$734,000.

The principal North American countries receiving United States exports were: Canada, \$187,730,100; Mexico, \$53,512,947; Cuba, \$48,217,689; Panama, \$19,014,196; British West Indies, \$11,431,536; Haiti, \$4,443,988; Newfoundland, \$3,708,300; Costa Rica, \$2,841,343; and the Dominican Republic, \$2,500,959.

There was a gain in exports to Canada of \$34,105,000, to Mexico of \$7,051,000, to Cuba of \$5,767,000, to Panama of \$2,214,000, to Haiti of \$943,000, and to Costa Rica of \$645,000. There was a loss in exports to the British West Indies of \$636,000, to Newfoundland of \$465,000; and to the Dominican Republic of \$223,000.

The principal countries of South America receiving United States exports were: Argentina, \$36,287,201; Brazil, \$19,765,836; Chile, \$6,787,557; Peru, \$4,371,088; Uruguay, \$4,016,105; Colombia, \$3,472,632, and Venezuela, \$2,529,669.

There was a gain in exports to Argentina of \$2,767,000, to Brazil of \$2,792,000, to Chile of \$1,414,000, and to Uruguay of \$881,000. There was a loss in exports to Peru of \$1,444,000, to Colombia of \$217,000, and to Venezuela of \$36,000.

The principal Asiatic countries importing goods from the United States were: China, including Hongkong and the British, French, German, and Japanese leased territories, \$27,229,423; Japan, \$23,471,837; British East Indies, \$9,709,232; Dutch East Indies, \$2,620,663.

There was a loss in exports to China of \$5,889,000, to Japan of \$10,153,000, and to British East Indies of \$1,967,000, and a gain to the Dutch East Indies of \$345,000.

In Oceania, Australia and Tasmania took \$25,501,199 of United States exports, the Philippine Islands \$13,791,095, and New Zealand \$5,216,820.

There was a loss in exports to Australia and Tasmania of \$971,000 and to New Zealand of \$925,000, and a gain to the Philippine Islands of \$3,880,000.

In Africa, British South Africa took \$8,453,439; Portuguese Africa, \$2,709,202; and British West Africa, \$2,067,304.

There was a gain in exports to British South Africa of \$1,285,000 and to British West Africa of \$17,000, and a loss to Portuguese Africa of \$1,917,000.

The principal articles of export, by groups, for the year 1909, were as follows:

Cotton, and manufactures of.....	\$496,334,428
Iron and steel, and manufactures of.....	159,045,664
Meat and dairy products.....	151,964,037
Breadstuffs.....	139,460,593
Oils.....	126,350,916
Copper, and manufactures of.....	94,819,956
Wood, and manufactures of.....	72,312,880
Leather, and manufactures of.....	47,146,415
Coal and coke.....	41,774,191
Leaf tobacco.....	36,844,121
Agricultural implements.....	27,327,428
Live animals.....	20,795,138
Chemicals, drugs, and medicines.....	20,330,335
Dried cakes and meal.....	20,245,818
Fruits and nuts.....	18,707,670
Cars, carriages, and other vehicles.....	16,674,036
Naval stores.....	16,103,076
Paper, and manufactures of.....	15,280,541
Furs and fur skins.....	11,506,355
Electrical apparatus, phonographs, etc.....	10,332,720

The leading purchasers of agricultural implements were: Argentina, \$5,672,000; Russia, \$4,886,000; France, \$3,728,000; Canada, \$2,588,000; Germany, \$1,515,000; Australia, \$1,058,000.

In live animals, there were exported 187,957 cattle, worth \$16,274,250; 11,886 hogs, worth \$76,515; 23,428 horses, worth \$3,334,455; 4,162 mules, worth \$561,870; and 54,613 sheep, worth \$265,356. Nearly all of the cattle, \$15,490,000, went to the United Kingdom, and most of the hogs to the West Indies and Bermuda. The horses were exported principally to Canada, over 18,600, worth \$2,240,000. Horses to the number of 1,800, worth \$312,800 went to Mexico, and four-fifths of the sheep to Canada.

The principal items under breadstuffs were: Indian corn, over 36,000,000 bushels, worth \$25,444,990; of this amount, \$9,800,000 went to the United Kingdom, \$3,810,000 to Canada, \$3,712,000 to Holland, and \$3,170,000 to Germany; oats, 1,272,000 bushels, worth \$672,469, of which the Philippines purchased over one-half and Cuba 236,000 bushels, worth \$117,782; wheat, 48,500,000 bushels, worth \$50,576,602, of which the United Kingdom purchased \$22,909,000, Germany \$6,830,000, and Belgium \$6,764,000; wheat flour, 9,688,000 bushels, worth \$49,953,000, of which the United Kingdom purchased 3,657,000 barrels, worth \$18,924,000, the British West Indies \$4,223,000, Cuba \$4,279,000, Holland \$4,332,000, and China \$3,432,000.

In cars, carriages, and vehicles there were exported automobiles worth \$6,889,031, of which \$2,437,000 went to Canada, \$2,059,000 to the United Kingdom, and \$846,000 to France. Railway cars worth

\$3,990,927 were exported, \$705,298 to Mexico, \$650,825 to South America, and \$548,829 to Canada. Bicycles to the value of \$610,616 were exported, of which \$114,000 worth went to the United Kingdom.

Under chemicals, drugs, and medicines, the principal exports were: Proprietary medicines, \$5,692,722; ginseng, \$1,472,095; and acetate of lime, \$1,280,687."

Of coal and coke, there were exported 2,842,714 tons of anthracite, worth \$14,141,468; 9,693,843 tons of bituminous, worth \$24,300,050; and 895,461 tons of coke, worth \$3,332,673. Practically all of the anthracite coal, over \$2,800,000, went to Canada. Of the bituminous, nearly 7,000,000 tons, worth \$16,667,126, also went to Canada; 614,000 tons, worth \$1,950,565, to Mexico; and 695,000 tons, worth \$1,908,243, to Cuba.

Under copper, ore, matte, and regulus was exported worth \$1,235,316, principally to Mexico and Canada, in nearly equal amounts. Copper in pigs, ingots, bars, plates, etc., was exported to the value of \$89,367,455. Of this amount, \$26,719,105 went to Holland, \$20,205,369 to England, \$18,227,800 to Germany, and \$12,192,119 to France. The value of other manufactured copper exported was \$3,217,185.

Unmanufactured cotton to the value of \$461,919,516 was exported. Of this amount, \$179,548,271 went to Great Britain, \$128,434,962 to Germany, \$73,215,186 to France, \$27,360,613 to Italy, \$11,105,843 to Spain, \$8,604,372 to Belgium, \$8,255,442 to Canada, \$8,207,707 to Japan, \$4,123,305 to Russia, and \$3,407,000 to Mexico.

Of manufactured cotton, the export of cloths was \$23,050,260. Of this amount, \$9,070,961 went to China, \$2,598,472 to the West Indies (except Cuba), \$1,610,176 to Central America, and \$1,363,042 to Cuba. Cotton clothing was exported worth \$5,040,542. Of this amount, Canada received \$1,395,357; United Kingdom, \$736,946; Central America, \$681,295; and Australia, \$415,368.

Of fruits and nuts, the principal exports were dried and green apples, dried apricots, oranges, prunes, and canned fruits. Of these articles there was exported to the United Kingdom, \$5,514,834; to Canada, \$4,946,682; to Germany, \$3,525,871; and to Holland, \$1,570,178.

The principal export of furs and skins was: To the United Kingdom, \$4,152,977; Germany, \$3,802,950; Canada, \$2,461,703; and France, \$777,387.

Electrical apparatus worth \$7,063,804 was exported: \$1,958,412 to Canada, \$1,190,276 to Brazil, \$824,578 to Mexico, \$571,343 to the United Kingdom, \$418,924 to Cuba, \$292,252 to the Philippines, and \$260,161 to Argentina. The export of phonographs, graphophones, etc., amounted to \$1,195,828, the greater amount of which went to the United Kingdom.

The export of iron ore amounted to \$1,365,325; pig iron, \$1,036,267; steel bars and rods, \$3,524,297; and steel billets and ingots, \$2,401,091. Of the last named, about four-fifths went to the United Kingdom and the remainder to Canada. Steel rails worth \$8,519,293 were exported, of which \$2,911,710 went to South America, \$1,850,592 to Germany, \$1,369,240 to Asia, \$954,798 to Canada, \$742,601 to Mexico, and \$665,284 to Central America. Structural iron and steel was exported to the value of \$4,408,197, of which \$1,752,000 went to Canada, \$483,927 to Mexico, \$414,590 to Japan, \$389,313 to Cuba, and \$312,801 to South America. There was exported fence and other wire worth \$7,836,564, of which Canada received \$2,218,000; Argentina, \$1,188,173; Australia, \$1,037,487; Mexico, \$759,321; Cuba, \$528,821. Builders' hardware, saws, and tools worth \$12,937,067 were exported, of which \$2,231,860 went to Canada, \$1,772,554 to the United Kingdom, \$1,322,903 to Australia, \$962,914 to Mexico, \$924,044 to Argentina, and \$794,050 to Germany.

Electrical machinery was exported to the value of \$5,963,746, of which \$1,020,012 went to Japan, \$674,672 to the United Kingdom, \$669,007 to Mexico, \$623,121 to Canada, \$450,526 to Brazil, and \$450,026 to Central America. Of \$4,601,663 in metal-working machinery, the United Kingdom received \$1,243,024; Germany, \$1,237,357; and France, \$475,844. Sewing machines worth \$6,559,105 were exported, of which the United Kingdom received \$1,398,253; Germany \$1,073,639; Argentina, \$534,288; West Indies, \$566,927; and Holland, \$515,301. Of locomotives valued at \$3,739,710, the United Kingdom received \$782,796; Mexico, \$496,440; Canada, \$199,977, and Central America, \$185,170.

There were \$7,325,070 worth of typewriting machines exported, of which the United Kingdom purchased \$1,726,110; Germany, \$982,739; Russia, \$756,134; France, \$729,886; and Holland, \$614,749. Of pipes and fittings valued at \$9,375,369, Mexico received \$1,941,050; Canada, \$1,360,000; Belgium, \$839,898; and Cuba, \$907,637.

Of leather and manufactures, sole leather to the amount of \$6,979,545 was exported, nearly all of which went to the United Kingdom. Of upper leather, valued at \$19,050,737, more than half went to the United Kingdom, \$1,417,095 to Germany, and \$1,357,872 to France. Of \$11,443,225 worth of boots and shoes, Cuba received \$3,907,473; the United Kingdom, \$1,834,413; Mexico, \$1,355,537; Canada, \$1,173,560; Central America, \$827,655; West Indies (other than Cuba), \$602,848; South America, \$539,234; Germany, \$535,795.

Of meat and dairy products, bacon valued at \$23,318,162 was exported, of which over \$20,000,000 went to the United Kingdom. The United Kingdom also received over \$19,000,000 worth of hams and shoulders out of a total of \$21,937,171. Lard to the value of \$48,770,370 was exported, of which \$19,178,264 went to the United

Kingdom, \$14,880,901 to Germany, \$4,099,050 to Holland, \$3,225,658 to Cuba, \$1,530,433 to South America, \$1,256,878 to Canada. Of a total of \$6,146,922 worth of lard substitutes, Cuba received \$2,149,493 and the United Kingdom \$2,045,020. Oleo and oleomargarine to the value of \$17,750,059 was exported, \$7,250,364 to Holland, \$3,699,958 to Germany, and \$3,193,203 to the United Kingdom. The export of butter amounted to \$699,460, going chiefly to Mexico, Central America, and the West Indies. Cheese was exported to the value of \$486,855, nearly \$200,000 of which went to the United Kingdom, \$81,000 to Central America, and over \$100,000 to the West Indies. The condensed-milk export was valued at something over \$1,000,000.

Of naval stores, resin was exported to the value of \$8,211,650. Of this amount, \$2,230,000 was shipped to Germany, \$2,050,000 to the United Kingdom, \$700,000 to Holland, \$650,000 to Brazil, and \$420,000 to Argentina. The export of spirits of turpentine amounted to \$7,779,728; of this amount, \$3,090,000 went to the United Kingdom, \$1,320,000 to Germany, \$1,000,000 to Belgium, nearly \$1,000,000 to Holland, and about \$500,000 to Canada.

Cotton-seed meal and cake was exported to the amount of \$16,660,700, of which amount Germany took nearly \$4,000,000, Denmark \$3,600,000, and the United Kingdom \$1,425,000. The flaxseed cake and meal exported was nearly \$9,000,000, of which Belgium purchased nearly half and Holland \$3,500,000.

The animal and fish oil export amounted to \$827,971, and the crude mineral oil export to \$6,567,749, of which latter France purchased \$1,370,044 and Mexico, \$1,219,356. The refined mineral oil export was \$97,270,841. Of this the amount of naphtha exported was \$5,799,994, and of illuminating oil, \$67,814,406. Of the latter, the United Kingdom took \$10,177,000; Germany, \$6,695,000; Holland, \$6,647,000; China, \$5,931,000; Japan, \$4,385,000; Australia, \$3,264,000; British East Indies, \$3,167,000; Brazil, \$3,143,000; Belgium, \$2,570,000; Argentina, \$2,064,000; Chile, \$817,149, and other South American countries, \$1,324,225. Of lubricating and paraffin oils, the amount exported was \$20,016,107. Of this amount the United Kingdom took \$5,142,000; France, \$2,607,000; Germany, \$2,527,000; Belgium, \$1,190,000; and Argentina, \$567,000. The amount of vegetable oils exported was \$21,684,355, of which \$19,684,355 was cotton-seed oil, and of this Holland took \$3,951,000; Italy, \$3,583,000; United Kingdom, \$1,940,000; Cuba, \$1,772,000; France, \$1,622,000.

The total paper export was \$15,280,541, of which over \$6,500,000 was books, maps, and other printed matter. Of this last amount, Canada took nearly \$3,000,000, and the United Kingdom, \$1,382,000. The printing paper export was over \$2,830,000, of which more than half went to the United Kingdom, \$236,000 to Cuba, \$221,000 to Argentina, and \$168,000 to Chile.

Of leaf tobacco, the United Kingdom was a purchaser to the amount of \$13,067,000; Germany, \$4,961,000; Italy, \$4,712,000; France, \$2,836,000; Holland, \$1,795,000; South America, \$1,514,000; Belgium, \$1,271,000; and Canada, \$1,191,000.

Logs, firewood and timber, hewed and sawed, were exported to the amount of \$13,600,576. Of this, the United Kingdom took \$5,659,000; Germany, \$1,209,000; Holland, \$1,508,000; Canada, \$1,248,000; Mexico, \$858,000; Central America, \$416,000; and Argentina, \$214,000. Of the lumber exports, boards, deals, joists, etc., amounted to \$32,856,078. Of this amount, the United Kingdom received \$6,121,000; Argentina, \$4,696,000; Canada, \$3,770,000; Holland, \$2,104,000; Belgium, \$1,854,000; Germany, \$1,680,000; Cuba, \$1,660,000; Mexico, \$1,576,000; Brazil, \$628,000; Chile, \$291,000; other South American countries, \$1,429,000; and Australia, \$1,614,000. The furniture export amounted to \$4,883,464. Of this amount, \$786,000 went to Canada, \$672,000 to Argentina, \$618,000 to Mexico, \$606,000 to the United Kingdom, and \$537,000 to Cuba.

AGRICULTURE, FORESTRY, AND FISHERIES.

Notwithstanding the fact that the total export trade in agricultural products does not tend to increase, but to the contrary there is every indication that it will in the future decrease, the total value of production in the United States increases enormously. The country is beginning to consume its surplus and may, in the near future, require the total amount thereof and even more. The following table shows the total value of farm production for the year 1880 and for the last ten years beginning with 1900, and also the total amount of agricultural exports and imports for the same years:

Year.	Farm production.	Agricultural exports.	Agricultural imports.
1880.....	\$2,212,541,000	\$694,315,497	\$314,617,480
1900.....	5,017,000,000	844,616,530	420,139,288
1901.....	5,317,000,000	951,628,331	391,931,051
1902.....	5,617,000,000	857,133,533	413,744,557
1903.....	5,917,000,000	878,480,557	456,199,325
1904.....	6,159,000,000	859,160,264	461,434,851
1905.....	6,309,000,000	826,904,777	553,851,214
1906.....	6,755,000,000	976,047,104	554,175,242
1907.....	7,488,000,000	1,054,405,416	626,836,808
1908.....	7,848,000,000	1,017,396,404	539,690,121
1909.....	8,760,000,000	903,238,122	638,612,692

It is probable that the value of the agricultural exports for either of the two years 1907 and 1908 will never be exceeded, if, in fact, it is ever again equaled.

In the year 1909 there were planted in the whole United States 108,771,000 acres of corn; the production was 2,772,376,000 bushels,

having a farm value of \$1,652,822,000. The principal corn States and the amount of their production were:

	Bushels.		Bushels.
Illinois.....	369,770,000	Nebraska.....	194,060,000
Iowa.....	289,800,000	Kansas.....	154,225,000
Missouri.....	213,840,000	Ohio.....	153,062,000
Indiana.....	196,520,000	Texas.....	122,250,000

The wheat acreage of the country for the year was 46,723,000; the production was 737,189,000 bushels, having a farm value of \$730,046,000. The principal wheat States and the amount of their production were:

	Bushels.		Bushels.
Minnesota.....	94,040,000	South Dakota.....	47,588,000
North Dakota.....	90,762,000	Washington.....	35,780,000
Kansas.....	87,203,000	Indiana.....	33,124,000
Nebraska.....	49,650,000	Illinois.....	31,494,000

The cotton acreage for the year 1909 was 31,918,000; the production was 10,386,000 bales, having a value of \$812,090,000. The principal cotton States and their production were:

	Bales.		Bales.
Texas.....	2,555,000	Alabama.....	1,065,000
Georgia.....	1,902,000	Arkansas.....	718,000
South Carolina.....	1,164,000	North Carolina.....	649,886
Mississippi.....	1,109,000	Oklahoma.....	573,786

The hay acreage for the year was 45,744,000, producing 64,938,000 tons, having a farm value of \$689,345,000. The principal hay-producing States were:

	Tons.		Tons.
Iowa.....	5,983,000	Pennsylvania.....	3,742,000
New York.....	5,002,000	Missouri.....	3,719,000
Illinois.....	4,135,000	Wisconsin.....	3,625,000
Ohio.....	4,033,000	Michigan.....	3,403,000

The acreage sown in oats in 1909 was 33,204,000, producing 1,007,353,000 bushels, having a farm value of \$408,174,000. The principal oat-producing States were:

	Bushels.		Bushels.
Illinois.....	159,064,000	Nebraska.....	61,825,000
Iowa.....	116,100,000	Ohio.....	56,225,000
Minnesota.....	90,288,000	Indiana.....	55,510,000
Wisconsin.....	79,800,000	North Dakota.....	49,600,000

The acreage planted in potatoes in the year 1909 was 3,525,000, producing 376,537,000 bushels, having a farm value of \$206,545,000. The principal potato producing States were:

	Bushels.		Bushels.
New York.....	52,560,000	Pennsylvania.....	23,790,000
Michigan.....	36,540,000	Minnesota.....	18,400,000
Maine.....	29,250,000	Ohio.....	16,926,000
Wisconsin.....	26,724,000	Illinois.....	14,924,000

The tobacco acreage for the year 1909 was 1,183,000, producing 949,357,000 pounds, having a farm value of \$95,719,365. The principal tobacco producing States were:

	Pounds.		Pounds.
Kentucky.....	315,700,000	Tennessee.....	53,290,000
North Carolina.....	144,000,000	Wisconsin.....	37,170,000
Virginia.....	120,125,000	South Carolina.....	32,000,000
Ohio.....	83,250,000	Pennsylvania.....	30,732,000

The barley acreage for the year was 7,011,000, producing 170,284,000 bushels, having a farm value of \$93,971,000. The principal barley producing States were:

	Bushels.		Bushels.
Minnesota.....	31,600,000	South Dakota.....	19,910,000
California.....	31,270,000	Iowa.....	10,890,000
North Dakota.....	27,027,000	Washington.....	7,189,000
Wisconsin.....	24,248,000	Kansas.....	4,860,000

On the 1st of January, 1910, there were in the United States 21,040,000 horses, of a farm value of \$2,276,363,000, and 4,123,000 mules, of a farm value of \$494,095,000. The States having the greatest number of horses were:

Illinois.....	1,655,000	Kansas.....	1,187,000
Iowa.....	1,447,000	Nebraska.....	1,045,000
Texas.....	1,369,000	Missouri.....	1,005,000

The States having the greatest number of mules were:

Texas.....	702,000	Mississippi.....	290,000
Missouri.....	344,000	Alabama.....	253,000
Tennessee.....	290,000	Georgia.....	248,000

On the same date the number of cattle was 69,080,000, having a farm value of \$1,697,761,000; of these, 47,279,000 were beef cattle, and 21,801,000 milch cattle. The farm value of the former was \$917,453,000, and of the latter, \$780,308,000. The States leading in the beef-cattle production were:

Texas.....	7,131,000	Nebraska.....	3,040,000
Iowa.....	3,611,000	Oklahoma.....	1,637,000
Kansas.....	3,260,000	Colorado.....	1,425,000

The States leading in the ownership of dairy cattle were:

New York.....	1,771,000	Illinois.....	1,232,000
Iowa.....	1,570,000	Pennsylvania.....	1,140,000
Wisconsin.....	1,506,000	Texas.....	1,137,000

The number of sheep in the United States on the same date was 57,216,000, with a farm value of \$233,664,000. The leading sheep States were:

Wyoming.....	7,316,000	Idaho.....	4,248,000
Montana.....	5,747,000	Ohio.....	3,203,000
New Mexico.....	4,729,000	Utah.....	3,177,000

The number of sheep of shearing age on April 1, 1909, was 42,293,205; from these was cut 287,110,749 pounds of wool. In addition, there was 41,000,000 pounds of pulled wool, making altogether 328,110,749 pounds of washed and unwashed wool.

The number of swine in the United States on January 1, 1910, was 47,722,000, with a farm value of \$436,603,000. The leading swine States were:

Iowa.....	6,485,000	Nebraska.....	3,201,000
Illinois.....	3,772,000	Missouri.....	2,714,000
Texas.....	3,205,000	Indiana.....	2,578,000

In 1908, the last year for which statistics were available, the lumber production of the United States was 33,224,369 thousand feet, having a value of \$510,575,822. The principal lumber-producing States were:

	Thousand feet.	Value.		Thousand feet.	Value.
Washington.....	2,915,928	\$37,090,925	Wisconsin.....	1,613,315	\$26,064,564
Louisiana.....	2,722,421	38,689,159	Texas.....	1,524,008	18,368,492
Mississippi.....	1,861,016	27,919,256	Michigan.....	1,478,252	18,010,585
Arkansas.....	1,656,991	25,067,864	Oregon.....	1,468,158	22,967,344

The lumber output was from 50 or more different species of trees, but the principal of these were 10 in number, with an output as follows, given in thousands of feet:

Yellow pine.....	11,236,372	Spruce.....	1,411,992
Douglas fir.....	3,675,114	Western pine.....	1,275,550
White pine.....	3,344,921	Maple.....	874,983
Oak.....	2,771,511	Cypress.....	743,297
Hemlock.....	2,530,843	Poplar.....	654,122

The output of shingles was over 12,000,000 thousands, worth over \$24,000,000. The great bulk of these were cedar, cypress, and yellow pine, more than two-thirds being cedar.

The turpentine and rosin product was worth nearly \$32,000,000; turpentine, 36,589,000 gallons, worth \$14,112,400; rosin, 4,288,283 barrels, worth \$17,783,550.

The value of the product of fisheries for the year 1908, the latest for which data is available, is \$54,030,629. Oysters lead, the product for the year being worth \$15,713,002. The lobster output was \$1,931,005, and clams \$1,917,216. The leading species of fish in order were: Salmon, \$3,346,830; cod, \$2,902,877; shad, \$2,133,399; squeteague, \$1,776,408; halibut, \$1,562,005; haddock, \$1,308,499.

The State of Massachusetts led in fisheries—\$7,095,227. The leading States next in order were: Virginia, \$4,715,744; New York, \$4,593,702; Washington, \$3,513,238; Florida, \$3,388,690; Maryland, \$3,305,673; Maine, \$3,256,581; New Jersey, \$3,068,486.

MANUFACTURES.

The latest complete statistics of manufacturing industries of the country were for the year 1905. For this year, not including the hand trades, the number of establishments was 216,262, employing a capital of \$12,686,265,673. The number of employees in these establishments was 5,470,321; their total annual wages amounted to \$2,611,540,532. The cost of material used in the establishments was \$8,503,949,756, having an output of \$14,802,147,087. The principal industries and the value of their output were as follows:

Food and kindred products	\$2, 845, 235, 000
Iron and steel.....	2, 176, 740, 000
Textiles.....	2, 147, 441, 000
Lumber and its manufactures	1, 223, 730, 000
Chemicals and allied products.....	1, 031, 965, 000
Metals and products other than steel and iron.....	922, 262, 000
Paper and printing.....	857, 112, 000
Vehicles, cars, etc.....	643, 934, 000
Liquors and beverages	501, 267, 000

Statistics of the hand trades were not collected for this year. In 1900 the output of these amounted to \$1,183,615,000.

The increase in the annual value of manufactured products from 1900 to 1905 was nearly \$3,400,000,000. It is certain that the same rate of increase has continued to the present, so that the output of the manufactures of the United States, not including the hand trades, for the year 1909 should amount to about \$18,000,000,000 or more. There has been a corresponding increase in the number of establishments, capital employed, number of employees, and the cost of raw materials. The principal manufacturing States in 1905, with their output, were: New York, \$2,500,000,000; Pennsylvania, \$2,000,000,000; Illinois, \$1,400,000,000; Massachusetts, \$1,125,000,000; Ohio, \$960,000,000, and New Jersey, \$775,000,000.

MINING.

The mineral production of the United States for the year 1908 (except gold and silver, for which values for 1909 are substituted) was \$1,600,301,906. Of this, the production of metals amounted to \$554,554,836, and of nonmetallic substances \$1,045,497,070 (\$250,000 is allowed for unspecified mineral products).

The values of the principal metallic products were as follows:

Pig iron.....	\$254, 321, 000	Zinc.....	\$17, 930, 406
Copper.....	124, 419, 335	Aluminum.....	2, 434, 600
Gold.....	99, 232, 200	Antimonial lead.....	1, 264, 771
Silver.....	28, 010, 100	Quicksilver.....	824, 146
Lead.....	26, 104, 008		

The values given above (except for pig iron, gold, and silver) are those of the principal market for the particular metal—for copper, lead, and zinc, New York; for quicksilver, San Francisco; and for aluminum, Pittsburg. The value given for pig iron is the value at the place of production; for silver, its commercial value in the international markets; for gold, its coinage value. The number of tons of pig iron produced was 15,936,018, of the value given above. For the year 1909, the production of pig iron was 25,795,471 tons.

The principal States in the production of gold were: Colorado, \$21,954,700; California, \$21,271,300; Alaska, \$20,947,600; Nevada, \$14,908,400. Of silver, Montana, \$6,241,900; Utah, \$4,958,900; Colorado, \$4,730,100; Nevada, \$4,457,000.

For the year 1909, the principal States in the production of pig iron were: Pennsylvania, 10,918,824 tons; Ohio, 5,551,545 tons; Illinois, 2,467,156 tons; Alabama, 1,763,617 tons; New York, 1,733,675 tons; and Michigan, 964,289 tons.

The principal nonmetallic substances were:

Bituminous coal.....	\$374, 135, 368	Cement.....	\$44, 477, 653
Anthracite coal.....	158, 178, 849	Sand.....	12, 135, 433
Clay products.....	133, 197, 762	Phosphate rock.....	11, 399, 124
Petroleum.....	129, 706, 258	Lime.....	11, 091, 186
Stone.....	65, 712, 499	Salt.....	7, 553, 632
Natural gas.....	54, 640, 374	Mineral waters.....	7, 287, 269

Practically all of the anthracite coal was produced in Pennsylvania—73,340,102 tons, out of 74,384,297 tons. Of bituminous coal, Pennsylvania produced out of a total of 296,903,826 tons, 104,624,578 tons; Illinois produced 42,553,295 tons; West Virginia, 37,408,788 tons; and Ohio, 23,455,928 tons.



URUGUAY

GEOGRAPHICAL SKETCH.

The Oriental Republic of Uruguay lies between the Atlantic Ocean, the Rio de la Plata (River Plate), Brazil, and the Argentine Republic. It is separated from Brazil by the rivers Cuareim and Yaguarón, and by Lake Merim, and from the Argentine Republic by the Rio de la Plata and the Uruguay river.

Uruguay has an area of 72,210 square miles, and, although the smallest independent State in South America, it is yet larger than New York and West Virginia combined. It has a population of 1,112,000, or 15.4 per square mile, which is about one-half the population per square mile of the United States of America.

The most notable feature of Uruguay is its extent of long, rolling plains, comprising almost the entire length of the country, occasionally broken by low mountain ranges and copiously watered by numerous streams.

By reason of its peculiar topography the Republic is naturally suited for both sheep and cattle, the raising of which is its principal industry. Numerous meat-packing houses are located throughout its territory. Agriculture is practiced to a considerable extent, nearly all of the cereals being raised, although mostly for home consumption, only a small quantity being until recently available for export. In the forests are found a number of excellent cabinet and other woods, noted for their beauty and durability, while the mountains contain silver, copper, and gold.

HISTORICAL SKETCH.

To JUAN DIAZ DE SOLIS is usually given the credit of having discovered the Rio de la Plata in the year 1515, and it was he who first landed on Uruguayan soil and took possession of the country in the name of the King of Spain. This act cost him his life, the savage Charrúas, who at that time inhabited the country, attacking and killing him and all his party.

The country was explored by several other Spaniards and Portuguese, none of whom, however, succeeded in conquering the aborigines, and it was not until the Jesuits arrived in the year 1624 that permanent settlements were established. The territory was then placed under the jurisdiction of the Governor of Paraguay and later under the Viceroy of the Rio de la Plata.

Portugal, however, laid claim to the territory of Uruguay, basing her claims on the terms of the treaty of Tordesillas of June 7, 1494.

The country was for nearly two centuries a matter of contention between the two powers, Colonia and later Montevideo being successively occupied and evacuated by the troops of both Spain and Portugal. The territory was finally ceded to Spain October 1, 1777, by the treaty of San Ildefonso.

In the year 1806, Great Britain being at war with Spain, a fleet was dispatched to the Rio de la Plata, under Sir HOME POPHAM, who attacked Montevideo but was repulsed. A second attempt, made in the year following with a stronger force, was more successful, and on January 23, 1807, the British captured the fort of Montevideo after a siege of eight days. They were obliged, however, to evacuate their position a few months later when General WHITELOCKE was defeated at Buenos Aires.

The movement for independence in Uruguay may be said to have begun with the declaration of independence at Buenos Aires on May 23, 1810. Uruguay was declared a part of the United Provinces of Rio de la Plata, and on May 18, 1811, the Spanish troops were defeated and utterly routed by the Uruguayan general, JOSÉ ARTIGAS.

Brazil, however, now claimed the territory of Uruguay, and, sending a strong force to occupy the country, took possession of it, and on May 9, 1824, the Emperor of Brazil declared the territory to be incorporated into Brazil as the Cisplatine Province. The independence of the country was declared on August 25, 1825. The patriots, ably assisted by the government of Buenos Aires, defeated the Brazilian troops on October 12, 1825. This led to a war between Brazil and the Argentine Republic, which was ended by the treaty of August 27, 1828, whereby both countries recognized the independence previously declared in La Florida by the Uruguayan patriots. A Constitutional Congress met in November of the same year and appointed General RONDEAU provisional Governor. The constitution having been promulgated on July 18, 1830, General FRUCTUOSO RIVERA was elected the first President of the Republic and inaugurated on November 6 of the same year.

Dr. CLAUDIO WILLIMAN, the present Chief Executive, was inaugurated March 1, 1907, for a term of four years.

CONSTITUTION AND GOVERNMENT.

The constitution of Uruguay was promulgated on July 18, 1830, and, with some slight amendments, is still in force.

The Senate and House of Representatives compose the General Assembly, in which all legislative power is vested. Representatives are elected directly by popular vote in the proportion of 1 for every 3,000 inhabitants or fraction exceeding 2,000, and for a term of three years. Senators are elected indirectly for a term of six years, one for each Department. The Senate is renewed by thirds every two years.

Every citizen over 20 years of age, who is physically and mentally able to do so, is entitled to vote.

A permanent committee, composed of two Senators and five Representatives, represents the Congress during recess, whose duty it is to assist and advise the President on all matters legislative, and to act for the General Assembly.

The President is chosen by the General Assembly for a term of four years and may not be reelected for the term immediately following his own. In case of the President's disability or death, the presiding officer of the Senate assumes the Presidency. The salary of the President is \$36,000 per annum.

A Cabinet of five ministers, having charge of the following Executive Departments: Interior; Foreign Affairs and Worship; Public Works; Industries, Labor, and Public Instruction; War and Marine; and Finance, is appointed by the President and is directly responsible to him and to the Legislature.

The judiciary is composed of a Supreme Court of Justice, two courts of appeals, and a number of lower courts. The justices of the Supreme Court are elected by the National Assembly, while the judges of the other courts are appointed by the Supreme Court.

INTERIOR GOVERNMENT.

The Republic is divided politically into 19 Departments, which are subdivided into sections and districts. The representative of the Executive Power in the Department is the *jefe politico y de policia*, appointed by the President of the Republic. There is, besides, in each Department, an *intendente municipal*, assisted by a council, the members of which are elected by direct vote.

The Departments of Uruguay and their respective capitals are:

Department of—	Capital.
Artigas.....	San Eugenio.
Canelones.....	Guadalupe.
Cerro-Largo.....	Melo.
Durazno.....	Durazno.
Flores.....	Trinidad or Porongos.
Florida.....	Florida.
La Colonia.....	Colonia del Sacramento.
Maldonado.....	Maldonado.
Minas.....	Minas.
Montevideo.....	Montevideo (also capital of the Republic).
Paysandu.....	Paysandu.
Rio Negro.....	Fray Bentos or Independencia.
Rivera.....	Rivera.
Rocha.....	Rocha.
Salto.....	Salto.
San Jose.....	San Jose.
Soriano.....	Mercedes.
Tacuarembó.....	Tacuarembó or San Fructuoso.
Treinta y Tres.....	Treinta y Tres.

The principal cities and their population are: Montevideo, 350,000; Paysandu, 18,000; Salto, 18,000; Mercedes, 15,000; and San José, 11,500. The principal seaports are Montevideo, Colonia, and Maldonado.

ARMY AND NAVY.

The permanent army of Uruguay consists of 2 regiments 3 batteries, and 3 sections of artillery, 2 machine-gun companies, 9 regiments of cavalry, 6 squadrons of cavalry, 8 battalions of infantry, 9 companies of infantry, and 1 Government escort regiment. The personnel of the army numbers 6,562 men, including commissioned officers. The personnel of the police consists of 3,834 men. The militia forces of the Republic are estimated at 100,000 men.

The present Government is now busily engaged in reorganizing the navy, and to this end has purchased several vessels. The Stettin (Germany) docks have recently delivered at Montevideo the armored cruiser *Uruguay*.

URUGUAY IN 1909.

In 1909, as in previous years, the Republic continued in the enjoyment of the complete peace which has characterized the administration of President WILLIMAN. Uruguay is, like Argentina, an agricultural and pastoral country chiefly, and being in practically the same latitude as the sister Republic across the River Plate, is affected by the same conditions. It is pleasant to note, therefore, that the prosperity so characteristic of the larger Republic during the last year is likewise reflected in the smaller one.

In financial matters the Republic is on a stable footing. The President stated in his annual message at the beginning of the year, that in all probability the revenue would exceed expenditures, and this prophecy was fulfilled, for at the end of the year the actual surplus was greater even than had been hoped. The greater part of this saving was used by the Government for material improvements throughout the country. It will be seen from the detailed financial statement given below that the national debt was somewhat increased, but as all effort of the Government is toward reaching a uniform system of the public debt or of applying such funds to internal improvements, the country is a gainer rather than a loser from the increase.

Trade statistics of Uruguay show that since 1903 there has been a steady increase in foreign commerce—both imports and exports—and that, with only one exception (the year 1906), the balance of trade was in favor of the Republic. In 1909 this balance was \$8,978,256—

a favorable trade scarcely equaled by any commercial nation in the world. Uruguay exports more products of its pastoral than of its agricultural industry, but the crops of grain were large and the factories for the preparation of meat products were kept busy during the year.

The interior of the country has in some respects been well supplied with railway transportation facilities, trunk lines from the capital, through the center, reaching as far north as the Brazilian frontier. The policy of the Government and foreign capital, however, have combined to open many near portions of the Republic, and several projects for this purpose received practical encouragement during the year. Within a short time rails will be laid from the capital almost to the Atlantic Ocean; a concession to bisect the country southwest and northeast has been approved by the Government, and the agreement between Uruguay and Brazil whereby the waters of Lake Merim and the Yagaurón River are more freely opened to navigation promises great industrial activity.

In connection with the railways, the Government has revived its earlier policy of establishing colonies throughout the country. Hitherto, the tide of immigration has been steady, although numerically not large, many immigrants entering the country for work in the fields, and not a few of them returning at the end of the season or passing across the river into Argentina. With this system of colonization along the railways, however, the country is sure to receive a permanent increase from abroad to its population.

FINANCE.

In his message on the opening of the General Assembly on February 15, 1909, President CLAUDIO WILLIMAN stated that in all probability there would be a surplus in revenues over expenditures for the fiscal year 1908-9, amounting to a little over 1,595,000 pesos.

In his message on the convening of the Assembly on February 15, 1910, the President states that the actual surplus exceeded the amount predicted in his former message by over 120,000 pesos, the exact figures being 1,716,012.71 pesos. Estimating the Uruguayan peso at \$1.04 United States gold, this represents a surplus of \$1,784,653.25. Adding the amount of the surplus for the year to the surpluses of preceding years during President WILLIMAN's administration, the total would amount to nearly 6,000,000 pesos, all of which has been utilized in works of public improvements. On the 29th of September, 1909, the surplus above mentioned was appropriated by the General Assembly to the construction of roads, bridges, and national buildings; 600,000 pesos was especially set apart for this purpose; 250,000 pesos to finish the new penitentiary, for improvements on the departmental jails, for the fire department in Montevideo, for police

stations, etc.; 150,000 pesos for the construction and repair of national jails; 200,200 pesos for the national marine, and 50,000 pesos for the repairs of custom-houses and ports.

The general budget of expenditures for the year 1909-10 amounts to 21,075,330.74 pesos, which amount does not include the special appropriations from the surplus above mentioned. This budget is the same as that for the year 1908-9, with certain minor alterations. The estimated revenues for the year were 23,366,830 pesos.

During the year the export tax on preserved meats was reduced from 1 peso to 0.40 peso per 100 kilos, and the export duty on extract of beef from 0.10 peso to 0.05 peso per kilo. These reductions, it is estimated, will cost the Government about 41,000 pesos. There were further reductions of taxation which, together with those mentioned, it is estimated will reduce the revenue by over 500,000 pesos. All of these are in the interest of commerce.

The President announces that there will be a considerable increase in expenditures, notwithstanding which, on account of the general prosperity of the country and the increase in other governmental revenues, particularly customs revenues, he estimates that there will be a probable surplus at the end of the fiscal year of 1909-10 amounting to \$1,383,720.43 pesos.

According to a report issued by the public credit office on March 1, 1910, the total amount of the national debt on December 31, 1909, was 135,805,784.05 pesos. This represents an increase for the year of 5,648,694.25 pesos. During the year additional obligations to the amount of 8,258,425.22 pesos were issued, and 2,609,731 pesos were canceled. The following table is an exhibit of the national debt at the end of the year 1909:

Debt.	Interest.	Sinking fund.	Total, December 31, 1908.	Issued during the year.	Redeemed during the year.	Total, December 31, 1909.
INTERNAL DEBT.						
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>
Guaranty debt.....	4	1	3,052,200.00	.....	77,900.00	2,974,300.00
Unified interior debt....	4	1	3,144,350.00	.....	286,300.00	2,858,050.00
Liquidation debt.....	.....	.....	205,074.95	.....	2,200.00	202,874.95
Redemption debt, second series.....	.....	4	1,966,350.77	20,440.47	244,900.00	1,741,891.24
Guaranty bonds of the Uruguayan Eastern Railroad.....	5	2	241,385.86	.....	4,600.00	236,785.86
EXTERNAL DEBT.						
Uruguay consolidated debt.....	3½	1	85,263,734.00	.....	1,322,580.00	83,941,154.00
Uruguay 5 per cent loan of 1896.....	5	1	5,683,146.00	.....	189,974.00	5,493,172.00
5 per cent conversion loan of 1905.....	5	1	27,950,848.25	2,238,000.00	360,691.00	29,828,157.25
Public works loan of 1909.....	5	1	.....	5,999,994.75	30,586.00	5,969,398.75
INTERNATIONAL DEBT.						
Spanish debt.....	5	2	8,000.00	.....	8,000.00	.....
Brazilian loan.....	5	1	2,642,000.00	.....	82,000.00	2,560,000.00
Total.....	.....	.....	130,157,089.83	8,258,425.22	2,609,731.00	135,805,784.05

COMMERCE.

In his annual message to Congress on February 15, 1910, President WILLIMAN stated that the foreign commerce of the Republic for the year 1909 amounted to a total of 82,946,467 pesos, of which 37,156,764 pesos was imports and 45,789,703 pesos was exports. Valuing the Uruguayan gold peso at \$1.04, this would make the value of the Uruguayan commerce for the year, in United States gold, as follows: Imports, \$38,643,035; exports, \$47,621,291; total, \$86,264,326.

The trade for the last three years was as follows:

Year.	Imports.	Exports.	Total.
	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>
1907.....	37,470,715	34,912,072	72,382,787
1908.....	36,188,723	40,296,367	76,485,090
1909.....	37,156,764	45,789,703	82,946,467

According to the report of the United States Bureau of Statistics, the exports of the United States to Uruguay for the year 1909 amounted to \$4,016,105.

The message of the President, above referred to, states that there were exported during the year 1909 38,481 live cattle, 42,063 sheep, and 8,864 horses.

From a report from the United States consul, FREDERIC W. GODING, of Montevideo, the following are the principal exports for the year 1909 (the report does not give the values, but simply the quantities): Meats: Sixty-three thousand and seven beef quarters to Great Britain, 4,218 packages of canned beef, practically all to Great Britain; 396,792 bales of jerked beef, 21,277 to Great Britain and 20,301 to the United States; 48,611 gross of eggs were also exported, destination not given. Out of 110,810 mutton carcasses exported, 105,338 went to Great Britain, and of 12,895 packages of canned tongue exported, 11,223 went to Great Britain.

There were 2,393,078 cattle hides exported, as follows: One million two hundred and fifty-two thousand nine hundred and twenty-seven to the United States; 466,599 to Germany; 301,279 to Belgium, and 11,855 to France. Germany received 5,727 nutria skins. Of a total of 18,237 bales of sheepskins, 13,551 went to France, 1,694 to Germany, and 1,649 to Belgium. Of 11,309 bags of horns, 5,482 went to the United States, 2,691 to Belgium, and 1,404 to France. There were exported 3,522 bales of hair, 2,455 to France, and 528 to the United States. Bones to the amount of 8,146 tons were exported, 4,767 to Germany and 2,984 to the United States. The United States received 6,724 bags of dried blood out of 6,933 bags exported. Five hundred and twenty-eight bales of glue stock were exported, and 939 tons of bone ash, 730 tons of the latter going to France, and 209 to Belgium. Great Britain received 4,979 tons of tallow out of a total

of 12,422. Nine thousand three hundred and eighty-three bags of guano were exported to the United States. There were 87,657 bales of wool exported, as follows: Twenty-six thousand eight hundred and thirty-one to France, 26,677 to Belgium, 22,905 to Germany, 4,538 to the United States, and 2,189 to Great Britain.

Barley to an amount of 914 metric tons was exported to Belgium. Germany received 2,725 tons of bran out of a total of 3,251. Of a total of 11,716 tons of Indian corn exported, 4,453 went to Belgium and 2,591 to Great Britain. Germany imported from Uruguay 216 tons of corncobs. Of 7,397 tons of flour exported Belgium received 1,053 and Great Britain 554. Linseed to an amount of 5,004 tons was exported, 893 going to Belgium and 417 to Germany. There were exported to Great Britain 80 tons of linseed oil cake and 654 bales of linseed straw. Of a total of 30,705 tons of oats and wheat exported, 10,128 went to Belgium and 2,260 to Germany. The United States imported from Uruguay 8,462 cases of onions and garlic, also 3,980 bags of quebracho extract.

INDUSTRIES.

Uruguay is essentially a pastoral country, 97 per cent of its area being devoted to that industry and 94 per cent of its exports being the products of its herds and flocks. The reasonably cheap land, the low cost of living and labor in rural districts, taken together, enable Uruguay wool to successfully compete with that of any other country. The principal wools produced in Uruguay are the Merino, Lincolns, and Downs, and their crossbreeds, called *Mestizos*. The wool clips for the past three seasons were as follows: 1906-7, 92,593,200 pounds; 1907-8, 105,820,800 pounds; 1908-9, 114,639,200 pounds. The number of sheep in Uruguay during the same period were: 1906-7, 21,000,000; 1907-8, 24,000,000; 1908-9, 26,000,000.

Of the great estancias or grass farms devoted to the raising of live stock, the Liebig Company owns seven in Uruguay for the supply of its extract factory at Fray Bentos. The killing season commences early in January and lasts until June, and during the year 1907 252,630 cattle were slaughtered. The killing is done under the inspection of an expert of the company and great care is used in the selection of the animals.

The cereals under cultivation in the Republic during the year 1907-8 represented areas as follows: Wheat, 617,000 acres; flax, 64,000; oats, 8,000; barley, 5,000; and alpiste or canary seed, 700. The wheat production for the year was 202,208 tons, and flax 18,372 tons. The production of corn was 3,011,726 bushels, grown on 410,068 acres. Experiments with this crop are being conducted at the agricultural experiment station of the University of Montevideo, utilizing new methods and modern machinery.

Wine production amounted to 4,904,321 gallons. Shipments of fruits, reaching thousands of tons, were made to Buenos Aires and Brazilian ports. Vegetables, medicinal plants, and tobacco were grown in moderate quantities. Experiments conducted with the mulberry tree show that silk culture might be undertaken to advantage in the country.

A topographical survey is being made by the Government with the view of thoroughly investigating the climatic and soil conditions of the country for the purpose of encouraging the crops most suited to the different sections.

The development of the native flax is assured under the law revoking the import duties on the machinery and apparatus used in the extraction of this fiber and its elaboration. The law further provides that no export tax shall be levied on the manufactured products of this industry for a period of three years from the date of the promulgation of the law.

Dairy interests are likewise receiving the support of the Government, factories and requisite machinery being exempted from taxation for ten years and the sum of \$20,000 appropriated for a national exhibition of dairy products to be held during the winter of 1910.

More than 55,000 pounds of ostrich feathers were exported from Uruguay during the calendar year 1909, as compared with 33,000 pounds in 1908. The majority of the feathers, it is said, are very fine, sometimes equaling and even excelling the African variety in quality. The large, especially selected feathers, such as are used on ladies' hats, bring from about \$7 to \$12 per pound.

Industrial enterprises are being started along various lines. There are several flour mills in Montevideo and a large number of boot and shoe factories. Furniture is made in considerable quantities, and there are a number of cement and coke works. A new brick and tile works is being established in the suburb of Bella Vista, which is to have a daily output of 60,000 bricks. Several woolen factories are in successful operation, one of which gives employment to 600 men, who operate 140 looms and weave upward of 2,500,000 pounds of wool. This mill also weaves a certain quantity of cotton goods from imported stock, and turns out some mixed goods of cotton and wool. There is one glass factory, which employs 75 hands and has a capacity of 3,600 demijohns and 9,600 bottles daily. There are also several soap factories and a number of carriage and wagon manufactories. At La Sierra there is a sugar factory with a capacity of several thousand tons annually. Preparations are being made to establish near the city of Paysandu a textile factory and mill for the manufacture of locally grown wool, the motive power to be obtained from the rapids of the Queguay River, and a Montevideo firm is arranging to utilize the locally grown flax by organizing a linen textile factory.

It is said that Uruguay bids fair to become a successful rival to Italy, France, and Spain in the production of olives and olive oil. The yield of olives in Uruguay for the 1908 season was 264,552 pounds; for 1909, 352,736 pounds; while the crop for 1910 will have a corresponding increase, estimated at more than double that of 1909, as many more trees will then have reached the bearing age.

Alluvial gold deposits and gold quartz have been found in the Departments of Minas, Treinta y Tres, Montevideo, and Rivera, and this metal has been produced by various mining companies in paying quantities.

Coal, whose existence in commercial quantities has frequently been reported, is mined in the Departments of Montevideo, Santa Lucia, and Cerro Largo. In the latter instance a company has been formed for the adequate exploitation of the beds. The Cerro Largo coal, as well as that of Santa Lucia, is of good quality. Peat coal is found in Maldonado and Montevideo, and peat alone also exists near the Bay of Maldonado.

Petroleum, while known to exist, has not yet been developed commercially.

Asbestos, antimony, graphite, copper-silver, and copper-iron, as well as iron, are found in various sections.

The Government is liberal in the privileges it offers for the adequate development of its mineral resources, allowing the free importation of requisite machinery and implements, and granting ample protection to investing companies.

Gems and various semiprecious stones are also known to exist in the Republic.

RAILWAYS AND INTERIOR WATERWAYS.

There are in operation in Uruguay 1,540 miles (2,500 kilometers) of railway, all but 36 miles of which are of standard gauge. Of these, 780 miles (1,255 kilometers) are under state guaranty. In addition, there are 341 miles (548 kilometers) prospected, with an assurance that construction will soon be under way. Eleven companies are registered in the country as owning railroad property, but of these only five are working companies. They are: The Central Uruguay, which owns the line from Montevideo to Rio Negro, and other important trunk lines toward the north and east; the Midland of Uruguay, which runs from Rio Negro westward to Paysandu and Salto; the Uruguay East Coast Railway; the Norte Railway, and the Puerto Sauce to Minuano Railway, a narrow-gauge line.

There are already three means of reaching the Brazilian frontier, and two more lines are projected, with other cross-country connections, which will place Uruguay in close touch with its neighbor to the north. The principal extensions actually being made are the Midland

branch, from Alcorta to Fray Bentos, the Great Eastern, to Maldonado, and two on the Central, one as far as Tupambae, on the Melo branch, and the other to Treinta y Tres.

The Government of Uruguay has made a contract with the Pan-American Trans-Continental Railway Company for the construction of a railway from the northern frontier of the Republic to its southern border at Colonia. The importance of this enterprise lies in the fact that the line will be a portion of the Pan-American plan to secure



MAP SHOWING THE RAILROAD LINES IN OPERATION, WITH THOSE PROJECTED AND UNDER CONSTRUCTION, IN THE REPUBLIC OF URUGUAY.

rapid transit between New York City and Pernambuco, Brazil, by high-speed steamers, thence by rail to Valparaiso, via Rio de Janeiro, Colonia, and Buenos Aires.

The Uruguay line, 378 miles long, to be called "The Interior Railway of Uruguay," starts on the Brazilian border, at San Luis, passes through a magnificent agricultural region, rich in minerals, to Trinidad, thence to Colonia, on the River Plate, opposite to and 26 miles from Buenos Aires, where the terminals will include docks,

warehouses, and elevators, the depth of water allowing large ocean steamers to load and discharge.

The line must be finished within four years after the date of approval of the concession, and the company is required to invest in the fixed port works of Colonia not less than \$1,070,630, and a further sum of \$145,995 in steamers and lighters for the exclusive use of that port, the total sum to be expended within three years. The company further agrees to colonize at least 15 square leagues of land with a minimum of 1,000 families fitted for agricultural life and work, and to maintain that number for thirty-five years.

In connection with the colonization clause contained in the recently granted concession for the carrying out of the Pan-American Railway project in Uruguay, wherein the company undertakes to colonize 40,000 hectares along the line, the Central Uruguay Railway has presented a plan for the establishment of colonies along its lines. It is proposed to contract for the introduction of 250 families of foreign agriculturists, to each of which a farm of at least 40 hectares (98.8 acres) shall be supplied. Proprietary rights may be acquired by the colonists by the payment of an annual sum, which shall redeem the capital and interest at 6 per cent in fifteen years. Arrangements are also made for the supply of animals, seeds, machinery, and implements to intending colonists, the same to be paid for in annual installments.

The projected railway from Coronilla to Santa Rosa also includes a colonizing scheme, and other plans are being made for the establishment of colonists in Colonia and other sections. At Sarandi del Yi a colonization project embracing 23,000 hectares is being carried to a successful issue.

The excellent and extensive river system of Uruguay provides the country with over 700 miles of navigable rivers, the most important being the Rio de la Plata and Uruguay rivers, which together furnish over 500 miles. On the Uruguay River there are as many as 10 ports open to interoceanic trade, viz, Carmelo, Nueva Palmira, Soriano, Fray Bentos, Nuevo Berlin, Casa Blanca, Paysandu, Nuevo Paysandu, Salto, and Santa Rosa. On the Rio Negro is the interior port of Mercedes and on the San Salvador River a port of the same name. The Uruguay River is navigable for vessels of 14 feet draft as far as the city of Paysandu, and above that for vessels of 9 feet draft. The Rio Negro is navigable for ocean-going vessels as far as the city of Mercedes, and above that for light-draft vessels; and the Cuareim, Yi, Tacuarembó, Queguay, Arapey, Cebollati, Santa Lucia, San José, Yaguarón, Olimar, Tacuari, Dayman, San Salvador, and San Luis are all navigable short distances for ocean-going vessels and for small craft into the interior of the country.

The only lake of any importance is Lake Merim, situated on the border of Brazil, on which a regular line of steamers maintains communication with the different towns along its shores.

The mercantile marine of Uruguay has a steam tonnage of 71,016 and of sailing vessels 17,722 tons.

Two new steamers have been placed on the Uruguay River between Salto and Concordia. The new service on the Rio Negro inaugurated last year will be continued. Now that free navigation of Lake Merim and the Yaguarón River is assured, arrangements are being made for a line of steamers on the route to develop the trade between that region and other parts of Uruguay. The Government is building retaining walls and wharves where needed, and deepening rivers and harbors for the convenience of steamers employed in that trade. With the improvements already made, including those projected, the rivers of this Republic will prove of great value in stimulating the trade of the interior.

A bill will shortly be passed which provides for an appropriation of \$4,136,000 for the improvements of the Rio Negro from its mouth to Paso de los Toros, the object being to make the river navigable throughout the year. A dam is to be built 7 miles below the latter place, where a lock 40 feet wide will be provided. These improvements will allow light-draft vessels passage at all seasons, and, if satisfactory, will be followed by similar works on this and other rivers.

MEANS OF APPROACH.

Uruguay is easily accessible from the Atlantic Ocean, from the Rio de la Plata (River Plate), and from the Uruguay River, possessing numerous ports along the latter, which afford an easy and convenient outlet for its products.

Its principal port and commercial center is Montevideo, the capital, situated on the estuary of the Rio de la Plata, at its mouth in the Atlantic Ocean, where the largest ocean-going vessels may enter. The other ports on the Atlantic are Maldonado and La Paloma, while on the Rio de la Plata are Colonia, Puerto Sauce, Conchillas, and Martin Chico.

Montevideo is reached from New York by several lines of steamers on which there are a few direct vessels, but as a rule passengers are transhipped at either Rio de Janeiro or Santos.

With the west coast steamer connection is maintained by vessels plying between Hamburg and San Francisco and between Liverpool and Panama. With European ports a number of fast and elegantly fitted steamers establish direct communication, plying regularly between Montevideo and Liverpool, Southampton, Marseille, Bordeaux, Genoa, Naples, Barcelona, Vigo, Trieste, Hamburg, Bremen, Antwerp, and Rotterdam. There is also a line to New Zealand and Australia.

With the Argentine Republic, across the River Plate, constant connection is maintained between Buenos Aires and Montevideo. There is a regular night service of elegant and modern steamers between these two ports, and the daylight run is made very frequently, although with not such regularity as the other one. Between Colonia and Buenos Aires there is also regular communication in connection with the railway to Montevideo.

With Brazil there is rail connection over three lines, one running along the Uruguay River and meeting the railway which crosses the State of Rio Grande do Sul at Uruguayana. The others touch the Brazilian frontier, and there will soon be through rail connection via these lines. Connection is also made by steamer with Brazilian interior ports on the River Plate and the Parana and Uruguay rivers, and by coastwise steamers from Montevideo to Rio Grande do Sul and Rio de Janeiro.

During 1909 the total number of steamships entering the port of Montevideo was 3,051, with a tonnage of 7,029,673; and of sailing vessels, 248, with 154,614 tons burden; the clearances reported being 3,012, with 6,962,015 tons, and 253, with 123,320 tons for the two classes of vessels respectively. In the former class British ships were in the lead, while in the latter Argentine vessels predominated, followed by Italian, Norwegian, and native registers.

POSTS AND TELEGRAPHS.

At the beginning of 1909 post and telegraph offices in the Republic numbered 1,025. During the year under review 73 new post-offices were established in the interior and 3 in the capital city. Twenty-one new post routes were also established. Over 100,000,000 letters, cards, and postal packages are handled per annum. The postal revenues for the year amounted to \$516,129, an increase of \$30,425 over the preceding year.

Over 248 miles of telegraph lines have been reconstructed, and the Government is now contemplating the building of nearly 500 miles of new national telegraph lines. Over 1,000,000 domestic and international telegrams were sent and received during 1909.

A Marconi wireless station was erected at Punta del Este in 1909. This station is soon to have an equipment of the highest power.

EDUCATION.

Education in Uruguay is a national institution under a cabinet officer called the Minister of Industries, Labor, and Public Instruction. Primary instruction is obligatory. Secondary schools and those for higher education are distributed throughout the Republic. At the head of the system is the university at Montevideo, which has faculties of law, medicine, the arts, agriculture, commerce, mathematics, and the social sciences. There are also normal schools for

both sexes. A school of arts and trades and a night school for adults are maintained by the Government, and there is also a national military college.

At the close of 1909 there were 791 public schools of the primary grade in Uruguay, with an attendance of 74,896 pupils. Besides these, there were 289 private schools, with an attendance approximating 4,000. Nevertheless, although a number of schools were built during the year, the enrollment of pupils has been so large as to necessitate an increase in the number of both schools and teachers. Consequently, it is the intention of the Government to establish primary schools throughout the country, so that there will be at least one school for each 1,000 inhabitants.

Under statute, all teachers in state schools are required to possess a good knowledge of the English language, and at the University of Montevideo encouragement is given to the study of English.

GENERAL INFORMATION.

The interest taken by the Government of Uruguay in colonizing the Republic for the double purpose of increasing the population and developing the agricultural wealth has continued, encouragement having been given in every effort made in that direction by natives or foreigners. The Government has in hand several schemes for forwarding the movement. A surplus in one of the Departments amounting to the sum of \$798,443 is to be used to purchase agricultural lands which are to be sold to actual settlers who will be assisted by the Bank of the Republic, as occasion demands; to this sum \$620,400 is to be added from the general surplus. A bill now being considered by the Chambers provides power to expropriate land for colonizing purposes, provided owners refuse to subdivide their properties. These lands will be divided into farms, not exceeding 370 acres each, which are to be paid for during a series of years, and can not be used for pastoral purposes without special permission. A local colony is being organized at Pando, where the owners, aided by the Government, will make macadamized roads, erect schoolhouses, and introduce other improvements. In the Department of Colonia 17,298 acres have been diverted to found an agricultural colony, being divided into farms of from 125 to 250 acres each, and is to be provided with good schools and roads. 5,000 acres in the Department of Paysandú are being divided into small farms, and a German company has acquired 1,250,000 acres of land in the the Department of Maldonado, which will be provided with a railway outlet.

One of the most important laws passed by the Chambers during the year is that for the public works loan of 1909, which provides for a foreign loan of \$6,204,000 to be expended in public works as follows: \$2,555,000 for municipal works; \$1,344,200 as a beginning of the Government Palace, and \$206,800 for the military and naval academy.

The Uruguayan-Brazilian treaty concerning the joint ownership of the Lake Merim and the Yagguarón River was concluded on October 30, 1909.

During the year the Uruguayan Government participated in the following meetings held in other countries in the interests of science and public welfare: The Sixth International Congress of Hygiene held in Budapest; the Universal Conference at The Hague for the Preservation of National Resources; the inauguration of the monument of the Universal Postal Union in Berne. A special representative was also sent to the United States to make a thorough investigation of the methods employed in that country in the preparation and preservation of meat products, and also to report as to the export markets for the same.

The naturalization treaty with the United States was ratified by the Uruguayan Congress on May 14, 1909.

The contract for the issue of the loan of \$5,999,984.75 (Uruguayan gold) to be applied to public works in the Republic, was signed on July 8, 1909, by the Minister of Finance and the Representative of the Banque de Paris et des Pays Bas.

During the year the following appropriations were made: \$15,000 to improve the port of Nueva Palmyra; \$2,500,000 to build 8 customs deposits of reinforced cement. The port of Piriapolis is to be constructed, which, with the building of the port of La Paloma, will have an important influence on the trade of Uruguay. This port will be connected with the Great Eastern Railway by a branch a few miles in length.

The new Montevideo port works are nearly finished, and a portion has been opened for the use of vessels. Montevideo now has a port capable of accommodating large ocean vessels.

A commodious new custom-house has just been built at Salto. To favor the shipping of agricultural products of the vicinity, the port of Sauce is being dredged to accommodate the largest river steamers.

The improvements near Maldonado are considerable. The plan for the reconstruction of the breakwater at Punta del Este, and dredging the surrounding waters, has been approved. A fog siren and wireless station are being installed on Lobos Island; the latter, when finished, will be able to communicate with Rio de Janeiro, 1,000 miles distant.

The latest telephone statistics, compiled during the latter part of 1909, show 16,267 miles of wire in use, 4,605 telephone stations, and 321 persons employed in the service.

The health of the country is extraordinary. The latest statistics show that, while there are in France 93 deaths to 100 births; in Spain, 80; in Chile, 74; in Germany, 58; in Great Britain, 59; and in Argentina, 45; in Uruguay only 40 of the inhabitants die each year for every 100 persons born in the Republic.

VENEZUELA

GEOGRAPHICAL SKETCH.

The United States of Venezuela occupy the northernmost part of the South American continent, stretching in a northwesterly direction along the Atlantic Ocean and the Caribbean Sea and bounded on the land side by Colombia, Brazil, and British Guiana. According to data furnished by the Director-General of the Venezuelan Bureau of Statistics at Caracas, the country has an area of 393,976 square miles. Over this vast area there is distributed a population of only 2,664,241, Venezuela being one of the most sparsely populated countries in South America.

Venezuela may be geographically divided into three distinct zones, viz: The extensive plains and river valleys, known as the *llanos*, affording excellent pasturage for numerous herds of cattle; the mountain section, formed by the three mountain ranges; and the dry and healthful table-lands or plateaus.

This variety of physical features produces an equal variety of climate, products, and soil. Coffee, cacao, tobacco, and sugar cane are largely grown and exported, and wheat and other cereals thrive, but are mostly used for home consumption. The slopes of the mountains are heavily wooded and contain quantities of timber and many useful medicinal plants, among them *divi-divi* (*Cæsalpinia coriaria*), the pods furnishing an excellent material for tanning; *Machura tinctoria*, producing fustic and yielding an excellent yellow dye; *Indigofera anil* and *Indigofera tinctoria*, yielding indigo; *Castilloa elástica* and *Hevea brasiliensis*, yielding rubber, and numerous cabinet and other useful woods. The mines produce precious and useful metals—gold, silver, copper, and lead; the various asphalt lakes yield the best qualities of asphaltum; and along the coast pearls are found at different points. The principal exports of Venezuela are hides and skins, live cattle, coffee, and cacao.

HISTORICAL SKETCH.

The Venezuelan coast was first sighted by COLUMBUS on August 1, 1498, on his third voyage, and was successively explored by ALONSO DE OJEDA, ALONSO NIÑO, and others. The country at that time was inhabited by no less than 150 tribes of Indians, speaking 11 different languages and 150 dialects, among which the Caribs and Teques were the most warlike and savage. They succeeded for many years in preventing the permanent settlement of the country, and it was

here that the Spaniards encountered more difficulty and fiercer resistance from the aborigines than anywhere else in America.

In 1527 the King of Spain granted the Province of Venezuela to the BELZARES family, who dispatched AMBROSIO DE ALFINGER to bring it under subjection. ALFINGER and his successors did not, however, succeed in establishing Spanish authority beyond the coast strip, and it was not until the year 1545, when the Spanish Crown dispatched JUAN DE CARVAJAL and annulled the concession of the BELZARES family, that any permanent settlement in the interior was effected. The Spanish dominion was then gradually extended over the whole country, the Indians being enslaved wherever this was possible and treated with the utmost cruelty. This led to numerous rebellions, the Indians of Venezuela not being of the pacific, submissive character of those of Peru and other countries.

The British, French, and Dutch buccaneers added to the difficulties of the Spanish authorities by frequent attacks on the coast towns.

In 1718 the viceroyalty of New Granada was created and the territory of what is now Venezuela passed under the jurisdiction of the Viceroy at Bogota.

The first movement for independence was initiated in Venezuela as early as the year 1797 by the patriots GAUL and ESPAÑA, but, like many others which were to follow, it failed, the initiators being condemned either to death or banishment. Gen. FRANCISCO MIRANDA's various efforts to free the country from the Spanish yoke likewise failed. In the year 1810 the citizens of Caracas rose against the Spanish authorities, and on the 19th of April deposed the Spanish Governor, Don VICENTE EMPARÁN. A Constitutional Congress met on March 2, 1811, and on July 5 of the same year formally declared the independence of the United Provinces of Venezuela. The war of this first revolution lasted until 1812, when MIRANDA was defeated by the Spanish troops and Spanish authority again reestablished. In the year following SIMÓN BOLIVAR took up arms against the Spanish authorities and war was waged with varying success until BOLIVAR defeated the Royalists at the battle of Boyaca on August 7, 1819. This defeat ended the Spanish dominion in northern South America, the viceroy, SÁMANO, fleeing from Bogota shortly afterwards.

On December 17, 1819, Venezuela became a part of BOLIVAR's Greater Columbia, and upon the disruption of the Federation, Venezuela declared its secession and absolute independence on September 22, 1830.

Gen. JOSÉ ANTONIO PAEZ was elected the first President of the Republic. Under succeeding Presidents several attempts were made to change the form of government, and on February 20, 1859, by vote of a majority of its citizens, Venezuela declared itself in favor of a Federal Republic, which form of government was finally and

definitely adopted. The present constitution of Venezuela was authorized by the National Congress August 5, 1909.

Gen. JUAN VICENTE GOMEZ, the present incumbent of the Presidency, assumed the office in November, 1908, upon the retirement of Gen. CIPRIANO CASTRO. General GOMEZ was elected by Congress Provisional President of the Republic, and was elected Constitutional President on April 27, 1910, for a term of four years.

CONSTITUTION AND GOVERNMENT.

Venezuela, officially termed The United States of Venezuela, is one of the five federal unions of America, having adopted the federal, representative, republican form of government, the various States being entirely autonomous in their internal government, with certain limited powers only vested in the Federal Government.

The constitution now in force is that of August 5, 1909. The legislative authority is vested in a congress of two houses—the Senate and Chamber of Deputies—the former consisting of 40 members elected by the Legislative Assemblies of the States for four years, 2 for each State, Venezuelans by birth and over 30 years of age; the latter composed of deputies chosen from each State by a direct vote and for four years, 1 deputy for each 35,000 inhabitants, and an additional deputy for each additional 15,000. Any State having a population less than 35,000 shall elect a deputy. The Federal District and the Territories that now have, or in future may have, the population prescribed by law, shall also elect deputies. Deputies shall hold office four years, shall be Venezuelans by birth, and over 21 years of age. Congress meets on April 19 of each year, the sessions lasting seventy days, which period of time shall not be extended.

The Executive power is vested in a President of the Republic, a cabinet of ministers, who act in conjunction with the President, and a council of government that cooperates with him in certain cases provided for in the constitution. The President is elected by the National Congress for four years; must be a Venezuelan by birth and over 30 years of age, and is not eligible for reelection for the constitutional period immediately following that in which he holds office. During the temporary or permanent absence of the President, the office is occupied by the presiding member of the council of government. The council of government is composed of 10 members, 1 from each State, who are elected by Congress for a period of four years. At the time of organizing, the council of government elects a president or chairman and a first or second vice-president, who serve for a period of one year.

The Cabinet is appointed by the President and is responsible to him alone.

It is composed of seven Ministers, in charge of the Departments of Interior Relations, Foreign Relations, Finance and Public Credit, War and Marine, Fomento (Promotion), Public Works, and Public Instruction.

The Federal judiciary comprises the High Federal Court, the Court of Cassation, several courts of appeals, and a number of minor courts. The justices of the Supreme Court, seven in number, are elected by the National Congress for a term of four years, and the court meets annually.

Caracas is the seat of the federal authority, but when unforeseen circumstances so require, the Executive power may fix its residence at any other place in the Federal District.

The salary of the President is 60,000 bolivars (\$12,000) per annum, and that of the Ministers is \$9,264 per annum.

INTERIOR GOVERNMENT.

Twenty States, two Territories, and a Federal District comprise the United States of Venezuela. The States are autonomous and equal as political entities, each having a Legislative Assembly whose members are elected in conformity with the respective State constitutions. The executive power of each State consists of a Governor, a Secretary-General, and a Council of Government. The States are divided into districts and the latter into municipalities, each district having a Municipal Council, and each municipality a communal board.¹

The Federal Territories, in conformity with their fundamental laws, are administered by Governors appointed by the President of the Republic, the Governors in turn appointing their Secretaries.

The States and Territories with their respective capitals are:

State of—	Capital.
Apure	San Fernando de Apure.
Aragua	La Victoria.
Anzoátegui	Barcelona.
Bolívar	Ciudad Bolívar.
Carabobo	Valencia.
Cojedes	San Carlos.
Falcón	Coro.
Gúarico	Calabozo.
Lara	Barquisimeto.
Monagas	Maturín.
Mérida	Mérida.
Miranda	Ocumare del Tuy.
Nueve Esparta	La Asunción.
Portuguesa	Guanare.
Sucre	Cumaná.
Táchira	San Cristóbal.
Trujillo	Trujillo.

State of—	Capital.
Yaracuy	San Felipe.
Zamora	Barinas.
Zulia	Maracaibo.
Territory of—	
Amazonas	San Fernando de Atabapo.
Delta-Amacuro	Tucupita.

The Federal District comprises the city of Caracas, the capital of the Republic, together with the parishes of El Recreo, El Valle, La Vega, Antimano, Macarao, Macuto, and El Departamento Vargas.

The principal cities and their population are: Caracas, 73,000; Maracaibo, 50,000; Valencia, 40,000; Margarita Island, the seat of the pearl fisheries, has a population of 20,000.

ARMY AND NAVY.

The standing army of Venezuela numbers 5,632 men, including commissioned officers, according to the last military law enacted by the National Congress. The active army consists of the following branches: Infantry, artillery, and cavalry. The units of tactics for these branches are the infantry battalion, the artillery battery, and the cavalry squadron. The infantry battalion comprises 4 companies of 100 men each, and a squadron of cavalry consists of 100 privates divided into 4 sections. In addition to the active army, there is a reserve army, which is estimated to number about 100,000 men.

The Venezuelan navy consists at present of the following war ships and auxiliary vessels: 1 cruiser of 750 tons, 1 torpedo boat of 631 tons, 3 gunboats, and an army transport with a carrying capacity of 1,000 men. Service in the navy, as in the army, is compulsory; all Venezuelans, not otherwise exempted by the laws, are obliged to serve in the navy two years. The personnel of the navy comprises 457 officers and men.

VENEZUELA IN 1909.

The nation has preserved friendly relations consistently throughout the year with foreign countries. Although the interruption in the diplomatic affairs with France continued, and satisfactory arrangements have not yet been concluded in regard to certain details of the tariff with Great Britain, yet the end of the year saw the Republic even in better condition than at the beginning.

Financially, there was every encouragement to believe that the earlier prosperity of the country would soon be reestablished. All the annual foreign obligations were promptly met, the receipts and expenditures for the year balanced each other, and some portion of the principal of the foreign debt was paid off.

The foreign trade increased about 12 per cent over that of 1908, while the exports far exceeded imports, showing balance of trade to be in favor of the Republic. Coffee was the principal article of foreign export, followed by cacao, rubber products, hides of cattle, and gold.

It has not been found possible to extend the railway lines of the country, although some new construction work was done and the old lines were kept in good condition. However, the Government has given its approval to several projects for opening up the interior of the country, and when capital is once assured of protection undoubtedly a great stimulus will be given to railroad building.

The Government is desirous of attracting a good class of immigrants, and many measures for the promotion of colonizing enterprises are under consideration. Hygienic methods are being applied in the centers of population, vaccination being obligatory since May, 1909, and stringent regulations are enforced in regard to the sanitary condition of arriving and departing steamers.

FINANCE.

The budget of the receipts and expenditures for the year 1909-10 balanced at 50,000,000 bolivars. Valuing the bolivar at 20 cents United States gold, this is equivalent to \$10,000,000.

Of the estimated receipts, the chief items were: Imports, 22,350,000; surtax on imports, 12,237,500 (55 per cent); and salt, liquor, and stamp taxes, 12,500,000.

The expenditures were apportioned as follows:

	Bolivars.
Interior.....	10,525,872.20
Foreign Relations.....	1,017,464.07
Finance and Public Credit.....	19,083,326.00
War and Marine.....	9,570,557.20
Public Instruction.....	4,273,624.00
Fomento.....	3,301,935.00
Public Works.....	2,227,221.53
Total.....	50,000,000.00

According to the message of President JUAN VICENTE GOMEZ, transmitted to the National Congress on April 19, 1910, payments were made on account of the foreign debt during the fiscal year ending June 30, 1909, to the amount of 12,054,557.23 bolivars. Since then and up to the date of the message there had been paid on the same account 9,343,808.06, divided as follows:

	Bolivars.
Consolidated external debt.....	3,815,834.75
Consolidated internal debt.....	2,014,447.41
The diplomatic debt.....	484,921.86
The Washington protocols.....	2,408,372.45
On account of Critchfield claim.....	317,974.75

	Bolivars.
On account of Manoa claim.....	257,726.75
On account of Pardo claim.....	22,840.34
On account of English claims.....	21,689.75
Total.....	9,343,808.06

According to the statistical reports published by the Ministry of Treasury and Public Credit, the customs receipts from imports for the fiscal year 1908-9, ending June 30, 1909, were 18,662,166.08 bolivars, and the receipts for the first half of the fiscal year 1909-10—that is, the last six months of the year 1909—were 9,274,955.63 bolivars. The amounts collected from the several ports were as follows:

	1908-9.	First 6 months of 1909-10.
	<i>Bolivars.</i>	<i>Bolivars.</i>
La Guaira.....	8,285,627.19	4,004,100.59
Maracaibo.....	4,050,090.42	1,954,125.63
Puerto Cabello.....	3,184,674.30	1,430,759.20
Ciudad Bolivar.....	1,606,177.57	1,250,214.98
Carupano.....	603,635.32	333,471.26
Tucacas.....	498,215.97	.....
La Vela.....	241,312.30	157,614.89
Puerto Sucre.....	80,304.28	58,529.26
Cristobal Colon.....	37,786.47	12,735.91
Guanta.....	37,050.57	28,752.77
Caño Colorado.....	35,562.49	39,994.72
Pampatar.....	5,819.19	4,656.42

COMMERCE.

The foreign trade of Venezuela for the fiscal year ending July 1, 1909, amounted to a total of 132,325,800.44 bolivars. Of this amount, 49,180,484.63 was imports and 83,145,315.81 exports. Valuing the bolivar at 20 cents United States gold, this would give the trade at \$9,836,096.93 imports and \$16,629,063.16 exports, a total of \$26,465,160.09. Compared with the preceding year, this shows an increase in trade of \$2,125,520, the imports for 1907-8 amounting to \$9,778,810 and exports to \$14,560,830.

For the calendar year 1909 the trade was: Imports, 50,601,987.68 bolivars; exports, 83,049,922.85; total, 133,651,910.51. Reduced to United States currency: Imports, \$10,120,397.54; exports, \$16,609,-984.57; total, \$26,730,382.11.

The value of imports by countries of origin for the fiscal year 1908-9 was as follows:

	Bolivars.
England and colonies.....	14,989,699.87
United States.....	14,270,017.47
Germany.....	11,878,058.26
Spain.....	2,101,557.71
Italy.....	1,624,808.95
France.....	1,493,412.50
Holland and colonies.....	500,635.12
Belgium.....	124,810.00
Austria-Hungary.....	14,370.00
Guatemala.....	4,632.00
Colombia.....	1,500.00

The imports, by ports, were as follows:

	Bolivars.
La Guaira.....	22,648,817.60
Maracaibo.....	10,983,258.21
Puerto Cabello.....	7,003,347.82
Ciudad Bolivar.....	4,573,299.60
Carupano.....	1,655,881.00
Tucacas.....	1,326,190.02
La Vela.....	496,039.47
Puerto Sucre.....	156,847.32
Cristobal Colon.....	146,009.00
Caño Colorado.....	106,418.42
Guanta.....	67,370.89
Pampatar.....	20,894.65

The principal imports from England through the ports of La Guaira, Maracaibo, and Puerto Cabello were as follows:

	Bolivars.
Calicos.....	2,558,712.00
Percalé.....	1,418,310.00
Common gingham.....	1,132,232.00
Cotton drill.....	1,112,080.00
Unbleached cotton.....	700,212.00
Sewing cotton.....	516,271.25
Coal.....	297,099.45
Satine.....	264,555.00
Bleached cotton.....	262,710.00
Cotton lace.....	257,647.00
From the United States:	
Gold coin.....	2,479,716.00
Wheat flour.....	1,598,120.60
Drugs and medicines.....	502,207.21
Leather.....	266,498.70
Kerosene oil.....	364,441.00
Hams.....	168,123.20
From Germany:	
Cotton drill.....	1,626,172.05
Rice.....	766,038.80
Butter.....	411,996.85
Felt hats.....	186,284.60
Cotton stockings.....	182,885.05

The custom-house reports for the first half of the fiscal year 1909-10—that is, the last six months of 1909—show a total value in imports of 27,348,873.96 bolivars, or \$5,469,774.79.

By countries of origin, the imports for the period were as follows:

	Bolivars.
United States.....	8,399,536.87
Great Britain.....	6,773,578.82
Germany.....	5,599,288.59
France.....	2,166,317.80
Holland.....	1,768,825.77
Spain.....	1,442,987.51
Italy.....	803,614.40

VENEZUELA

COMMERCE

FISCAL YEAR 1908-9

BOLLIVARS

ENGLAND & COLONIES	14,989,699
UNITED STATES	14,270,017
GERMANY	11,878,058
SPAIN	2,101,557
ITALY	1,624,808
FRANCE	1,493,412
HOLLAND & COLONIES	500,635
BELGIUM	124,810
AUSTRIA-HUNGARY	14,370
GUATEMALA	4,632
COLOMBIA	1,500

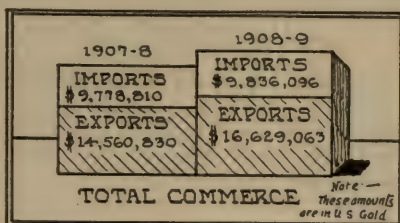
IMPORTS

BY COUNTRIES OF ORIGIN

UNITED STATES	37,231,026
FRANCE	24,767,644
ENGLAND & COLONIES	7,621,008
GERMANY	4,467,074
SPAIN	3,665,367
HOLLAND & COLONIES	2,408,720
CUBA	773,069
AUSTRIA-HUNGARY	575,496
ITALY	357,078
BELGIUM	226,440
BRAZIL	41,000
PANAMA	15,000
COLOMBIA	4,890
MOROCCO	4,000

EXPORTS

BY COUNTRIES OF DESTINATION



COFFEE	30,272,112
CACAO	18,124,074
BALATA GUM	6,727,936
CATTLE HIDES	4,647,468
RUBBER	2,397,983
GOAT SKINS	1,475,623
GOLD	1,380,991
CATTLE	1,049,242
EGRET PLUMS	980,394
ASPHALT	743,610
COTTON SEED	737,373
DIVIDIVI	698,199
SERNEMBI	317,777
DEERSKINS	278,033
GOLD COIN	210,912

PRINCIPAL

ARTICLES EXPORTED

NOTE.—
1 BOLLIVAR = 20 CENTS U.S. GOLD

	Bolivars.
Belgium.....	207,051.62
Trinidad (British colony).....	157,520.13
Curaçao (Dutch colony).....	13,403.00
Cuba.....	10,469.45
Ecuador.....	2,500.00
Austria-Hungary.....	2,380.00
Portugal.....	1,400.00
Total.....	27,348,873.96

The values of the exports of Venezuela for the fiscal year 1908-9, by countries of procedure, were as follows:

	Bolivars.
United States.....	37,231,026.96
France.....	24,767,644.65
England and colonies.....	7,621,008.20
Germany.....	4,467,074.85
Spain.....	3,665,367.35
Holland and colonies.....	3,408,720.00
Cuba.....	773,069.00
Austria-Hungary.....	575,496.00
Italy.....	357,078.80
Belgium.....	226,440.00
Brazil.....	41,000.00
Panama.....	15,000.00
Colombia.....	4,890.00
Morocco.....	4,000.00

The exports, by ports of embarkation, were:

	Bolivars.
Maracaibo.....	23,137,260.50
La Guaira.....	18,277,135.10
Puerto Cabello.....	16,764,383.00
Ciudad Bolivar.....	15,096,515.41
Carupano.....	4,890,821.00
Cristobal Colon.....	2,923,999.00
Cañon Colorado.....	937,311.00
La Vela.....	446,549.00
Puerto Sucre.....	438,760.00
Guanta.....	101,945.00
Pampatar.....	98,726.00
Tucacas.....	31,406.00

The following list shows the quantities and values of the principal exports:

	Quantities.	Bolivars.		Quantities.	Bolivars.
Asphalt.....	28,620 metric tons.	743,610.00	Goatskins.....	823,843 kilos...	1,475,623.85
Balata gum.....	1,638 metric tons.	6,727,936.65	Cattle hides.....	197,955 kilos...	4,647,488.83
Coffee.....	46,926 metric tons.	30,272,112.10	Deerskins.....	199,026 kilos...	278,033.13
Cacao.....	16,879 metric tons.	18,124,074.55	Egret plumes.....	1,422 kilos...	980,394.00
Rubber.....	341 metric tons.	2,397,983.60	Cattle.....	11,034 head....	1,049,242.00
Divi-divi.....	7,945 metric tons.	698,199.00	Gold.....		1,380,991.00
			Gold coin.....		210,912.00
			Sernembl.....		317,777.00
			Cotton seed.....		737,373.00

The principal exports to the United States, and their values given in bolivars were: Asphalt, 733,200; balata gum, 26,609.70; cacao, 2,772,269; coffee, 21,262,484; rubber, 1,813,897; goatskins, 1,036,677; hides, 3,145,573; deerskins, 345,178; gold, 238,065; gold coin, 21,361; sernembi, 298,097; egret plumes, 957,836.

To France: Balata, 1,920,902; cacao, 9,346,008; coffee, 11,345,946; rubber, 242,776; egret plumes, 482,221; hides, 290,306.

To England and Colonies: Balata, 1,523,581; cacao, 2,982,678; cattle, 989,060; gold, 658,703; gold coin, 121,407; egret plumes, 230,038; rubber, 176,532; copper, 276,592.

To Germany: Balata, 615,763; coffee, 2,488,277; cacao, 173,158; rubber, 163,101; divi-divi, 554,694.

To Spain: Cacao, 2,350,870; coffee, 1,286,633.

To Cuba: Coffee, 653,961.

To Belgium: Coffee, 223,460.

Austria-Hungary: Coffee, 567,896.

To Holland and Colonies: Cacao, 240,465; coffee, 2,163,072; goatskins, 245,570; divi-divi, 129,940; shoemaker's wood, 151,155.

To Italy: Wax, 201,919; coffee, 114,008.

According to the custom-house reports for the first half of the fiscal year 1909-10, that is, the last six months of the year 1909, the Venezuelan exports amounted to 32,544,131.37 bolivars.

By countries of procedure, the exports were as follows:

	Bolivars.
United States.....	12,992,622.25
France.....	8,949,430.57
Germany.....	2,629,605.63
Curacao (Dutch Colony).....	2,071,846.68
Great Britain.....	2,016,149.40
Trinidad (British Colony).....	1,953,342.39
Spain.....	861,246.45
Cuba.....	574,856.00
Holland.....	266,987.00
Austria-Hungary.....	83,927.00
British Guiana.....	66,000.00
Italy.....	56,159.00
Belgium.....	19,712.00
Puerto Rico.....	2,247.00
Total.....	32,544,131.37

Among the articles of export for the period were: Asphalt, 16,161 metric tons; balata, 1,082 tons; cacao, 6,236 tons; coffee, 14,921 tons; rubber, 67 tons; copper, 1,446 tons; hides, 1,864 tons; goat-skins, 513 tons; divi-divi, 2,261 tons; and egret plumes, 2 tons.

INDUSTRIES.

The exploitation of native products forms the basis of Venezuela's industrial life. The area under coffee is estimated at about 200,000 acres, the number of estates being over 33,000. Cacao growers oper-

ate 5,000 estates, and there are many sugar plantations. Recent figures indicate an increase in the exports of Venezuelan cacao for 1909 as compared with the previous year. Total shipments in 1908 aggregated 277,091 bags of 110 pounds each, of which 108,326 were shipped through La Guaira. During the eight months of 1909 the quantity sent abroad from the port amounted to 123,836 bags. Puerto Cabello is the next ranking point of exports for Venezuelan cacao, 100,000 bags being the export quota for 1908. Cotton is grown in exportable quantities, and the forest regions abound in rubber and fine timber. A contract for the exploitation of the forests of the Orinoco Delta has been approved by the Government, and concessions covering the Rio Negro and El Caura rubber sections contain special stipulations against the willful destruction of the trees. The cultivation and manufacture of tobacco is an important branch of industrial life, and rice growing is made the subject of special bounties in certain States.

New enterprises are covered by recently granted concessions for the culture of fiber plants and the development of the textile industry; also for linseed-oil factories, paper mills, cement and pottery works, etc.

The country is rich in minerals, gold, copper, silver, iron, and salt being profitably mined. Asphalt is exported to the United States in large quantities.

The coal output of the country is over 14,000 tons, and newly discovered deposits in the States of Zulia and Merida are being developed under a recent concession. General LEON JURADO has contracted with the Government of Venezuela for the exploitation of the coal mines of the State of Falcon, and the operation of the National Railway from La Vela to Coro, for a period of two years, which term may be extended for another period of equal duration if agreeable to both of the parties in interest.

Salt is a government monopoly, the mines being operated, in accordance with the decree of January 27, 1909, by agents of the Federal Government. The yearly rental is \$700,000.

The live stock of the country is estimated at over 6,000,000 head of cattle, 1,600,000 goats, and 1,600,000 pigs.

The pearl-oyster beds off the island of Margarita have been worked ever since the discovery of the country by the Spaniards. A new decree regulating the fisheries became effective November 1, 1909.

During the first six months of 1909 the balata and india rubber exported from Ciudad Bolivar to the United States, which ranks first as a receiver of the exports of rubber from this port, amounted, respectively, to \$145,561 and \$163,265.

On December 13, 1909, the Government of Venezuela entered into a contract with London representatives of the Venezuela Develop-

ment Company conceding valuable petroleum rights in Venezuela and the right to explore with geologists and expert mining engineers for petroleum, ozocerite or mineral wax, and similar substances in certain States in which the rights of exploitation have not been granted under previous contracts. The work of exploration must be commenced within six months from the date of the contract and completed within eighteen months thereafter.

A contract has been made by the Government for the establishment of the frozen-meat industry in the Republic, with the special view of exporting the products. The first plant will be at Puerto Cabello.

In the principal cities, like Caracas, Valencia, Maracaibo, and Puerto Cabello, considerable manufacturing for local consumption is done. In Valencia there has been established a fine plant for the manufacture of cotton cloth, a part of the raw material being imported, but a large amount produced in Venezuela itself. There are several electric plants furnishing power to the near-by cities, and in Caracas the newly installed tramway system is run by electricity.

RAILWAYS AND INTERIOR WATERWAYS.

The total length of railways in operation in the Republic is about 540 miles (869 kilometers). The number of lines, according to latest information, was 12, with an invested capital of over \$40,000,000.

Venezuela resembles Brazil very much more than Argentina in the character of its railway development. There are several points along the coast from which railways extend into the interior, and only in one locality have these lines been connected. In the extreme west there are three lines approaching Lake Maracaibo, but they are independent of each other and serve quite different areas of the country. Passing along the coast there are several short lines facilitating traffic between the interior and the sea; these, too, bear no relation to each other. The only place in the Republic where an extensive development has taken place is near the capital, Caracas, and the best settled portion of the country. The two most important ports on the Caribbean Sea are Puerto Cabello and La Guaira; from both of these railways pass to the interior, one to Valencia and the other to Caracas. Between these two interior points a third railway has been built, so that this entire rich and productive district is well supplied, comparatively, with active transport facilities.

A decree of August 13, 1909, approved in detail the terms of the contract made in April, 1908, with a citizen of the Republic for the establishment of an automobile and steamer service for the transport of freight and passengers in the Federal Territory of Amazonas. Navigation privileges are accorded on the branches of the Orinoco traversing the district, and free entry through the custom-

houses is granted for the equipment necessary for the carrying out of the enterprise.

The waterways of Venezuela form important means of communication and transportation, there being no less than 70 navigable rivers in the country, with a total navigable length of over 6,000 miles, of which the mighty Orinoco, the third largest river in South America, with its tributaries, furnishes nearly 4,000 miles. The more important of the other navigable rivers are the Meta, the Apure, the Portuguesa, the Yaracuy, and the Escalante, recently opened to free navigation, all of which are navigated by steamships



MAP SHOWING THE RAILROADS IN OPERATION AND PROPOSED LINES IN VENEZUELA.

for considerable distances. The Catatumbo River flows into Lake Maracaibo, and is navigable for small steamers, while the majority of the other rivers are navigable for steam launches and flat-bottom boats only.

A regular steamship service is maintained on the Orinoco, Apure, and Portuguesa between Ciudad Bolivar, the principal port on the Orinoco, and the interior, as well as points along the coast. Ocean-going vessels enter Lake Maracaibo, which covers an area of 8,000 square miles, and is navigable in its entirety. Lake Maracaibo is connected with the Gulf of Venezuela and the Caribbean Sea by

means of a strait 34 miles in length and from 5 to 9 miles wide. Numerous other lakes are found throughout the country, Lake Valencia being the most important of these, owing to its favorable situation between Puerto Cabello, La Guaira, and Caracas. It is navigated by small steamers.

MEANS OF APPROACH.

With its favorable geographical position on the Caribbean Sea and the Atlantic Ocean, and with a coast line of more than 2,000 miles Venezuela possesses no less than 50 bays and 32 ports. The most important of the latter is La Guaira, the commercial center of the Republic, other ports at which ocean-going vessels call regularly being Puerto Cabello, Guanta, and Cumana. Ciudad Bolivar, on the Orinoco River, 373 miles inland, and Maracaibo, on Lake Maracaibo, are the most important inland ports.

A regular service is maintained by several lines of steamers between New York and Venezuelan ports, and all European lines to the Caribbean Sea have La Guaira as a port of call.

The Fluyial and Coastwise Navigation Company of Venezuela has arranged with the Government to establish a regular semimonthly steamship service, consisting of one or more vessels, on the Orinoco River and its tributaries, extending to Port of Spain, Trinidad, as well as between Ciudad Bolivar and Maracaibo, touching at Cristobal Colon, Port Sucre, Carupano, Guanta, La Guaira, Puerto Cabello, La Vela, and other intermediate points, when it is thought that the traffic to be obtained will justify the same.

With the contiguous countries there is kept up some sort of commercial exchange by means of trails, but as yet there are no well-established thoroughfares.

The total number of steamers carrying foreign merchandise that entered the ports of Venezuela during the calendar year 1909 was 659, with a tonnage of 1,057,565, and of sailing vessels, 280, with 24,218 tons burden. Of these vessels, 62 were English ships, representing 130,121 tons. During the year 244 vessels, representing 480,163 tons, entered the port of La Guaira.

POSTS AND TELEGRAPHS.

According to the message of the President, 23 new post-offices and sufficient new postal routes to adequately connect these with existing offices were established during the year. The cost of maintenance of the post-offices for the period under review amounted to \$65,497.

The report of the Director-General of Telegraphs showed 169 offices in operation on January 1, 1909, and 4,756 miles of telegraph lines in the Venezuelan systems. During the year under review there were 9 new telegraph offices created.

An arduous campaign was carried on last year, under the supervision of the Ministry of Fomento, which had for its object the establishment of telegraphic communication not only with the countries bordering on the frontier of Venezuela, but also the ultimate establishment of a system which would include all the Republics of Latin America. Direct telegraphic communication is now had between Caracas and Bogota, Colombia.

It is reported that the Government has decided to establish wireless stations at Pampatar, Coche, and Araya on Margarita Island.

EDUCATION AND GENERAL INFORMATION.

Instruction is divided into public and private. The first is under the control of the nation, the States, and the municipalities. Public instruction is divided into elementary, secondary, and advanced or scientific. Consul ISAAC A. MANNING, of La Guaira, reports the number of schools in Venezuela as follows on the last quarter of 1909: For males, 731; for females, 574; mixed, 238; total, 1,543; designated as follows, the number of pupils enrolled being shown in parentheses: National schools, 1,014 (32,141); federal schools, 146 (4,817); municipal schools, 225 (7,537); private schools, 154 (4,092); second-grade schools, 4 (131); total number of schools, 1,543; pupils enrolled, 48,718. The ages of the pupils enrolled were as follows: Under 7 years, 6,401; between 7 and 10 years, 17,945; 10 to 12 years, 12,921; 12 to 14 years, 8,360; over 14 years, 3,091. The special educational institutions are: The National Academy of Fine Arts, the School of Arts and Trade, the Central University at Caracas, the University of Los Andes at Merida, the School of Engineering, and the Seminary of Theology and Canonical Jurisprudence.

The floating dock and shipbuilding pier at Puerto Cabello are adequately equipped for the repair of steam and sailing vessels of all sizes and kinds now operating in the Caribbean waters, and are able to render prompt and efficient services. The dock is 300 feet long by 80 feet wide, and has a depth of 19 feet. It is capable of accommodating a gross tonnage of 4,500 tons, and has an approximate power of 2,000 tons. The docks are surrounded by wharves for the accommodation of vessels requiring repairs, and there are ample docks available and excellent facilities for coaling. Any steam or sailing vessel plying in West Indian waters can be repaired in these docks at a reasonable price, and of a character of workmanship that is first class in all particulars. The mechanical workshops are supplied with instruments, tools, and materials of every description, and a trained corps of skilled artisans and expert engineers are constantly on hand to perform and superintend the work of repair. These docks have done much to make Puerto Cabello one of the most important ports of South America, and their establishment and

support by the Government of Venezuela is of great convenience and service to shipping in that part of the world.

A fine new cement wharf is being built at Puerto Cabello which will cost \$17,576. The Government has also entered into a contract for the construction of a steel dock at that place. The dock will cost 1,000,000 bolívars, or \$193,000 United States gold, and is to be completed on or before the 5th day of July, 1911.

An important concession recently granted by the Venezuelan Ministry of Fomento grants to a citizen of Barquisimeto about 15,000 acres of public lands to be exploited in banana plantations. The lands are located in the neighborhood of the Yaracuy River in the section tapped by the Bolivar Railway.

The old constitution provided that in public acts mention be made of the date of independence, July 5, 1811, and of that of the federation, February 20, 1859, while the new constitution prescribes that the date of independence of the nation, with respect to all official acts and documents, shall be April 19, 1810.



COFFEE CULTURE.

UNITED STATES REPRESENTATIVES IN THE LATIN AMERICAN REPUBLICS

AMBASSADORS EXTRAORDINARY AND PLENIPOTENTIARY.

Brazil.....IRVING B. DUDLEY, Rio de Janeiro.
MexicoHENRY L. WILSON, Mexico.

ENVOYS EXTRAORDINARY AND MINISTERS PLENIPOTENTIARY.

Argentine Republic.....CHARLES H. SHERRILL.
Bolivia.....HORACE G. KNOWLES, La Paz.
ChileHENRY P. FLETCHER, Santiago.
ColombiaELLIOTT NORTHCOTT, Bogotá.
Costa Rica.....WILLIAM L. MERRY, San José.
CubaJOHN B. JACKSON, Havana.
Ecuador.....WILLIAMS C. FOX, Quito.
GuatemalaWILLIAM F. SANDS, Guatemala City.
HaitiHENRY W. FURNISS, Port au Prince.
HondurasFENTON R. MCCREERY, Tegucigalpa.
Nicaragua....., Managua.
Panama.....THOMAS C. DAWSON, Panama.
Paraguay.....(Same as Uruguay.)
Peru.....LESLIE COMBS, Lima.
SalvadorWILLIAM HEIMKE, San Salvador.
UruguayEDWIN V. MORGAN, Montevideo.
VenezuelaR. S. REYNOLDS HITT, Caracas.

MINISTER RESIDENT AND CONSUL-GENERAL

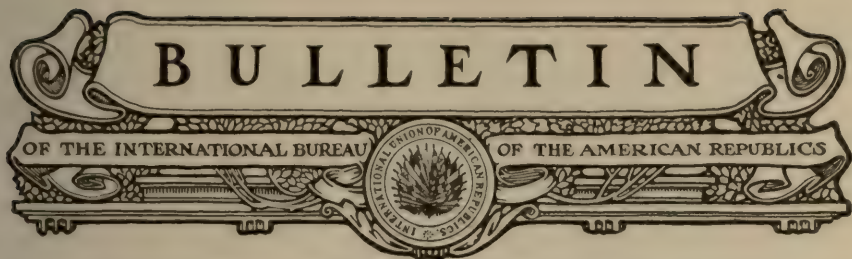
Dominican Republic.....WILLIAM W. RUSSELL Santo Domingo.



SEÑOR DON CARLOS E. RESTREPO

President-elect of Colombia.

The new President of Colombia was born in 1868 in the city of Medellín, Department of Antioquia, where he received his early education, taking up the study of literature, philosophy, and law. His father, Pedro A. Restrepo, founder of the town of Los Andes, was one of the most prominent professors of Antioquia and also a very able lawyer, from whom his son Carlos inherited his oratorical gifts. He entered the practice of law, in partnership with another distinguished lawyer, and later took an active interest in politics, being, at the time of his election to the presidency, the President of the National House of Representatives. Señor Restrepo has written considerable poetry and has made many translations from English and French authors. When Congress adjourned in 1909 he returned to his native city with the intention of retiring to private life, but this was denied him, for, on July 15, 1910, he was elected President of the Republic for a term of four years.



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NO. 3

THE death of President PEDRO MONTT, of Chile, on Tuesday, August 16, removed from Pan-American public life one of its ablest men. Although his sudden death was not a great surprise to those who were familiar with his condition, it was hoped by all of his friends that he might secure such rest and benefit in Europe that he would be able to return to his country with renewed strength and vigor.

President MONTT, arrived in New York from Valparaiso Wednesday, August 3, and sailed for Europe on Tuesday, August 9. Although ill health prevented his acceptance of any elaborate hospitalities from the cities of New York, Boston, and other places which would have had great pleasure in entertaining him, he was carefully looked after by the State Department and escorted in a special train to Beverly, where he and his party were guests of honor at a luncheon given by President TAFT. Visits were also made to various places of interest in and about New York City, but there was not sufficient time to include Washington in his itinerary. In view of the development of closer relations between the United States and Chile, and the more intimate commercial intercourse which must follow the opening of the Panama Canal, this visit of President MONTT to Beverly was important. It gave him and President TAFT an opportunity to talk over the affairs of the two countries, and to consider ways and means of bringing them closer together, both commercially and diplomatically. President MONTT was an example of the best type of Latin-American statesmen, and he came from a very distinguished family, his father having been President of Chile for ten years, from 1851 to 1861, and he himself was elected for a term of six years from June 24, 1907. He was born during the year 1846 at Santiago, the capital of Chile, and was graduated from the National Institute of his native city with the degree of doctor of laws in 1870. In 1874 he was elected to Congress, where he remained almost continuously until he became President, with the exception of having served as Speaker of the House of Representatives and as Minister in different cabinets. He was also, in 1891, Envoy Extraordinary and

Minister Plenipotentiary to the United States. Every one in the United States who met him was charmed with his personality, and expressed regret that his health would not permit of his meeting more representative men in the public and private life of this country.

INCREASING INTEREST IN LATIN-AMERICAN AFFAIRS.

It is most gratifying to note the growing interest with which the newspapers of the country are regarding Latin-American affairs. The contrast with the situation three or four years ago is most marked. The attention that is being given in the editorial and news columns of the principal newspapers to the Pan-American Conference now being held in Buenos Aires shows that the average American editor is now awakening to the importance of Pan-American diplomacy, commerce, and relationship. Where one paper discussed Latin-American affairs three years ago, a score now devote considerable space to the discussion of questions which have a Pan-American interest. The press clippings which have come into the Bureau in regard to the Pan-American Conference show that the world generally has recognized the significance of this gathering. The conventions and resolutions which it may draw up and approve will be closely studied, and if they are of a practical and useful character and are approved by all the governments represented at Buenos Aires, a long step will be taken toward the actual advancement of Pan-American comity and commerce. Although the previous conferences have been attended by the ablest of men, and have accomplished a great deal of good, the majority of their acts have never been approved later on by the governments represented. It is to be hoped that in the case of this conference the majority of its conclusions may be approved by all the American Republics.

PRESIDENT-ELECT HERMES DA FONSECA OF BRAZIL.

It was a source of profound disappointment to everybody interested in the development of closer relations of friendship and commerce between the United States and Latin America that Marshal HERMES DA FONSECA, President-elect of Brazil, was obliged to give up the plan he had originally made for visiting the United States during August. As soon as the news reached Washington that the Marshal would spend several weeks in the United States, word came from such cities as New York, Boston, Buffalo, Chicago, Pittsburg, and Philadelphia that their representative officials and business men would be pleased to have the distinguished Brazilian visit their cities and accept their entertainment and hospitalities. His itinerary would have included, of course, a call upon the President of the United States at Beverly, and upon the Secretary of State of the United States at Valley Forge, Pennsylvania. He

would have been taken, moreover, to Annapolis, West Point, and to a number of the leading educational institutions of the country. He would also have been shown work upon our rivers and harbors, and given an opportunity to see some of the principal industries, such as the steel works at Pittsburg and other places. Soon after the Marshal had made up his mind to go to this country, his doctors informed him that he must have complete rest before returning to Brazil. This he could not experience if he went to the United States. The illness, moreover, of his son caused him much worry, and it was finally decided that he must withdraw from his first intentions. It is hoped by everybody in the United States, however, that he may be able to honor this country with his visit later on.

THE RETIRING MINISTER OF ECUADOR.

In welcoming the new Minister of Ecuador, whose photograph and biographical sketch appears in another part of this BULLETIN, the International Bureau of American Republics desires to say a word of farewell to Señor DON LUIS FELIPE CARBO, who has for a number of years represented his country as Minister Plenipotentiary of that Republic in Washington, and who was lately transferred to a similar post at Caracas, Venezuela. As a member of the Governing Board of the International Bureau, Señor CARBO has been untiring in his efforts in behalf of the Bureau and in promoting better relations between the two countries. His presence will be greatly missed by his coworkers on the Governing Board and by the many friends he has made during his long residence in the capital. Upon the occasion of a visit made to the White House on June 25, to announce his departure from Washington, President TAFT made the following farewell address:

MR. MINISTER: It is with a feeling of great regret that I have learned of your recall.

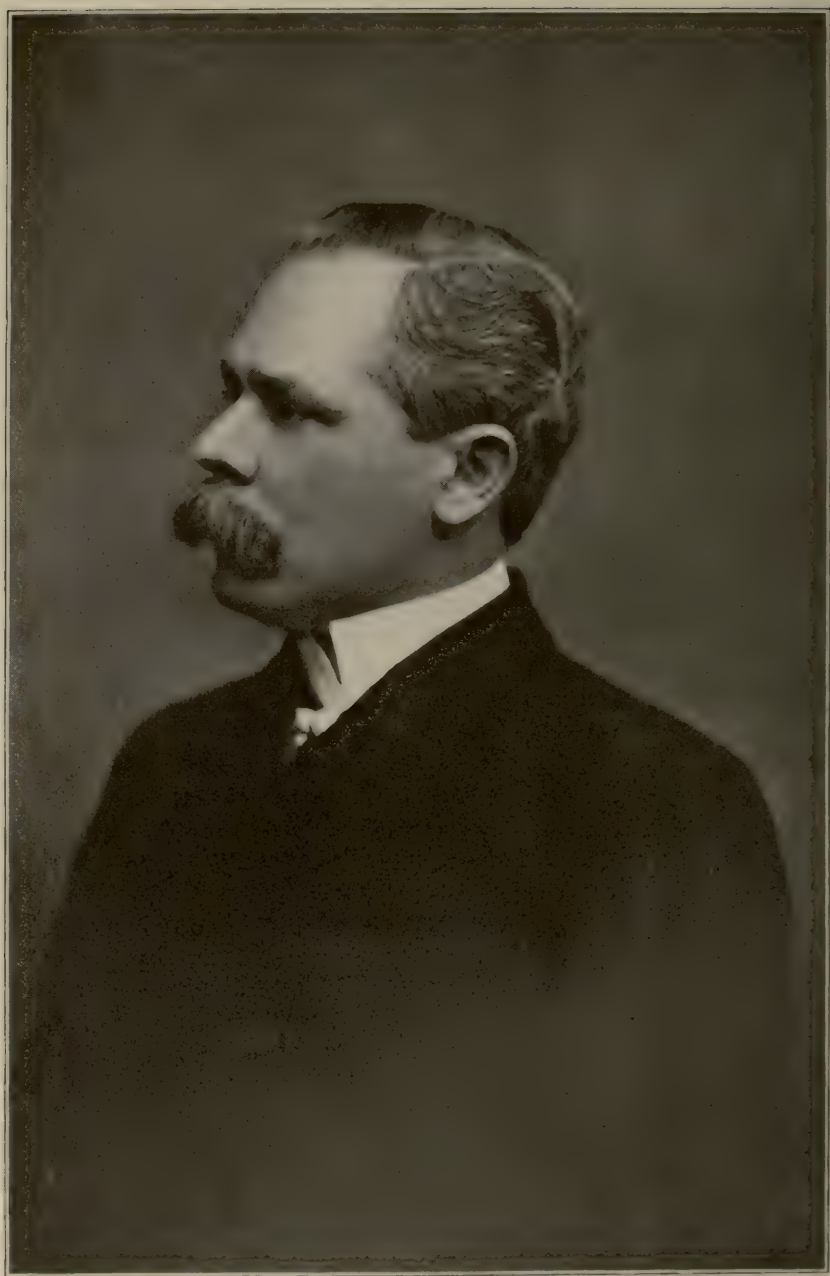
The unfortunate controversy between Ecuador and Peru concerning their boundary, and the efforts of this Government, in union with those of Brazil and the Argentine Republic, to bring about, through friendly mediation, a settlement of the controversy, has added to your reputation as a man and diplomat, and makes the parting from you, at this juncture, personally doubly painful to me.

After saying this much, it may seem superfluous to add that your sojourn in this country has been highly gratifying to the Government and people of the United States; and that your official relations with this Government have been in every way satisfactory, as they must be when intrusted, as in your case, to a gentleman combining in his person the man of ability and the true patriot.

In bidding you farewell, Mr. Minister, I beg to assure you of my high personal regard, and I wish you every happiness and prosperity.

HELP FOR THE COSTA RICAN EARTHQUAKE SUFFERERS.

Although the date is somewhat late to make mention of an event which occurred in June, it has been impossible to refer earlier to the musical soiree in aid of the sufferers from the Costa Rican earthquakes, given



SEÑOR DON LUIS FELIPE CARBO,
The retiring Minister of Ecuador.

Friday evening, June 10, in the grand ball room of the Hotel Astor, New York City, under the direction of Hon. JUAN J. ULLOA, Consul-General of Costa Rica. The affair took place after the June issue had gone to press and there was no editorial comment in the July and August numbers. This celebration was a most successful one and was largely attended by representative people of New York City. Its programme included an address by the consul-general, some musical pieces, and amateur theatrical presentations. In this same paragraph reference should also be made to the benefit which was given in the auditorium of the new building of the International Bureau of American Republics in Washington on June 2. This was arranged under the direction of Mr. JOAQUIN B. CALVO, Jr. He made an address descriptive of Costa Rica and of the extent of the damage caused by the earthquake, which was followed by an interesting musical programme.

PITTSBURG'S INTEREST IN LATIN AMERICA.

It is gratifying to record the fact that there will be given in September an exhibition in the great city of Pittsburg, where one of the features will be a Latin-American section, of which the purpose will be to awaken more interest among the manufacturers and exporters of Pittsburg in the markets which are open to them in the Latin-American Republics. Mr. P. C. WILLIAMS, the energetic and able Secretary of the Pittsburg Chamber of Commerce, has recently been in conference with the Director of the Bureau and has received his cooperation in arranging a display of maps, charts, publications, etc., which will inform the people of Pittsburg about the other American Republics. In the issue of Sunday, July 31, the "Pittsburg Gazette-Times" published a most comprehensive and practical article, entitled "The great trade possibilities that are awaiting Pittsburg in Latin America." This was prepared by Mr. RICHARD J. FARRELL, who showed by the facts which he had gathered that he had made a most careful investigation of the subject. Publicity of this kind can not fail to accomplish much good.

THE NEW MINISTER OF ECUADOR TO THE UNITED STATES.

No better selection could have been made by the Government of Ecuador to represent the Republic in Washington than Señor RAFAEL M. ARIZAGA, who recently presented his credentials as Envoy Extraordinary and Minister Plenipotentiary to the United States. Señor ARÍZAGA comes from a prominent family of Ecuador, his father, Señor JOSÉ RAFAEL ARÍZAGA, having been a distinguished statesman, writer, and magistrate. He graduated with the highest honors at the Cuenca University Law School in 1882, while still a very young man, and his legal career has been a very successful one. Entering the political arena, he



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SEÑOR DON RAFAEL M. ARIZAGA,

Envoy Extraordinary and Minister Plenipotentiary of Ecuador to the United States.

several times represented the Provinces of Azuay and Cañar in Congress, and is at present a Senator from the latter Province. He is considered one of the noted parliamentary orators of the Republic, has held the office of magistrate of the superior court of Azuay, and was twice offered the same office in the supreme court of Quito, the principal court of Ecuador, but declined. He is a professor of civil law in the University of Cuenca, has been a prominent and able newspaper man since early manhood, being the founder of a number of newspapers in the Republic, and has the reputation of being an eminent writer as well as an inspired poet. The new minister is also a member of the Ecuadorian Academy, which is a correspondent of the Royal Academy of Madrid, and is one of the principal leaders of the Conservative party of Ecuador, of which he has always been a member.

INTERNATIONAL COURTESIES AT MONTEVIDEO.

Papers which have been received from Montevideo give interesting accounts of the courtesies which were shown General WOOD and Admiral STAUNTON during their brief stay in that port. The most notable functions in their honor were dinners given by the Uruguayan Minister of War and Marine and by the United States Minister, Hon. EDWIN V. MORGAN. On the occasion, moreover, of the presentation of Admiral STAUNTON to President WILLIMAN, Mr. MORGAN made a happy address, referring, among other things, to the recent dedication of the permanent home of the International Bureau, to which President WILLIMAN responded in terms that emphasized his attachment to Pan-American interests. Among many appropriate things said by President WILLIMAN in his response was the following:

The puritan spirit indigenous to your people, which has cemented liberty and republican institutions throughout a vast territory, has made a cult of the education of the will and of labor, has suppressed human slavery and given to the world "millions of invisible slaves" in the productive forces of their machines, necessarily had to preserve among its other moral traditions the ideal of justice to which you have referred, an ideal that acquires the highest practical importance when proclaimed and sustained by a nation so powerful as that which is now making us this demonstration of friendship and courtesy.

A PAN-AMERICAN UNIVERSITY FOR PORTO RICO.

Hon. GEORGE R. COLTON, Governor of Porto Rico, is making a worthy effort to establish a Pan-American university in Porto Rico. He believes that no other agency would bind the two races with stronger ties than a fraternal education through such an institution. In a letter addressed to Hon. JOHN M. DICKINSON, Secretary of War of the United States, he says:

Porto Rico, by reason of its location, climate, beauty, and general characteristics, is the ideal spot for such an undertaking. The influence that would be exerted through this means in reconciling and bringing about a better understanding between



SEÑOR DON LUIS RICOY,
Chargé d'Affairs of the Mexican Embassy in Washington.

the Latin and Anglo-Saxon races in the Western Hemisphere would probably be the strongest that could be exercised. The social, political, and commercial significance of such an institution, located where the youth of the two continents could conveniently meet, in a climate and among people immediately congenial to those from both the North and the South, is apparent. * * *

Col. WILLIAM JENNINGS BRYAN, who has been spending a week here after an extensive tour through South America, is thoroughly convinced of the importance of this movement to our own country, and from information acquired on his recent tour, believes that the South American people will enter into the spirit of it and contribute their share toward making it a permanent success.

THE FIRST SECRETARY OF THE MEXICAN EMBASSY.

Señor Don LUIS RICOY was born in Mexico on April 22, 1866, and has passed the greater portion of his career since early manhood in his country's service, being promoted step by step until he reached his present high position in the Diplomatic Corps. He was employed in the office of the Secretary of Foreign Relations in 1890, and the following year was promoted to the position of English translator. In 1893 he was appointed Second Secretary of the Legation in Central America, and in charge of the Mexican consulate in Guatemala, and from 1894 to 1896 was Acting First Secretary of Legation in the absence of the minister. In the latter year Señor RICOY was appointed as Mexican delegate to the Central American Exposition held in Guatemala. In 1901 he was made Second Secretary of the Legation in France, and in 1906 was promoted to the same office in the embassy at Washington. In 1908 he was appointed First Secretary of the Legation to Belgium and the Low Countries, and in January of the following year was made *Chargé d'Affaires ad interim*. On March 16, 1909, he was appointed First Secretary of the Legation in London, where he remained until promoted to his present post in Washington. Señor RICOY is a linguist of no mean ability, speaking French and English fluently.

EXTRACT FROM ADDRESS OF MINISTER SHERRILL.

On the occasion of the Fourth of July celebration in Buenos Aires, Argentina, a notable speech was made by Hon. CHARLES H. SHERRILL, the United States minister. In the course of his remarks he made the following interesting references to Secretary KNOX, who is chairman of the Governing Board of the International Bureau:

It is with especial pride and enthusiasm that I speak of those achievements during the past year of my chief, the Secretary of State, the Hon. PHILANDER C. KNOX, which have already gained him the title of the "Peacemaker." We who are living in South America know what he has accomplished by his policy of removing misunderstandings which tended to have serious consequences. Thanks to the admirable cooperation of our sister republics, Argentina and Brazil, he has recently been successful in preventing an open outbreak between two other republics, to the keen

satisfaction of the many friends and well wishers of those countries. Mr. KNOX, while insisting upon proper respect for the rights of our citizens, has proceeded steadily forward upon our well-known policy of closer friendship and commercial relations with our sister republics of all the Americas, of which policy his immediate predecessor, the Hon. ELIHU ROOT, was also a distinguished interpreter. At no time in our history has our Department of State evidenced so active an interest in our relations with South America.

THE TRANS-MISSISSIPPI COMMERCIAL CONGRESS.

Col. I. T. PRYOR, President; Col. FRED W. FLEMING, Chairman Executive Committee; and Mr. ARTHUR F. FRANCIS, Secretary of the Trans-Mississippi Commercial Congress, have sent out invitations for the Twenty-first Annual Session of this congress, to be held in the city of San Antonio, Texas, United States of America, November 15 to 18. They are making a special effort to have the Latin-American countries represented, and have corresponded and conferred with the Director upon this point. It is hoped that many of them will respond favorably. Indications now point to a special representation from the Government of Mexico and from the different States of that neighboring republic. This congress is devoted to the development of the section of the United States west of the Mississippi River, and its managers fully understand the importance of bringing it into closer relations of commerce and friendship with the sister republics of the United States lying to the south. In the circular which they have recently issued they say:

One of the most important subjects for consideration at the Twenty-first Annual Session of the Trans-Mississippi Commercial Congress at San Antonio, Texas, November 15-19, inclusive, will be the advancement of Pan-American commerce and the necessity of cultivating a closer acquaintance and better understanding between the people of the United States and their neighbors of Central and South American countries. Trade between individuals is largely based on confidence, and confidence is usually the result of acquaintance and knowledge. This rule probably holds good in commerce between nations as well as among individuals. The executive committee of the Commercial Congress is very desirous that every country in Latin-America should be officially represented at the international session to be held in San Antonio. On account of the place of meeting being only removed by a few miles from the international boundary of the United States on the south, this important topic can be taken up as one of peculiar and timely interest.

A COMPLIMENT FROM A NOTED EDUCATOR.

One of the most prominent educators in the United States is Dr. WILLIAM J. TUCKER, who recently resigned on account of ill health the presidency of Dartmouth College. In a letter to the Director he says:

Allow me to express my personal appreciation of your service in editing the BULLETIN OF THE INTERNATIONAL BUREAU OF AMERICAN REPUBLICS. You are making it not only one of the most useful but also one of the most interesting of current periodicals. It is a great deal to be able to put "interest" into a government document.

Sentiments of this kind from a man of the critical judgment and high standing of Doctor TUCKER are much appreciated by those of the staff of the International Bureau who are laboring hard to make the BULLETIN a success.

TRAVELS IN THE DOMINICAN REPUBLIC AND HAITI.

Mr. FRANKLIN ADAMS, of the staff of the Bureau, has recently returned from an extensive trip through Cuba, Haiti, and the Dominican Republic. In the latter two countries he made a long journey on horseback, accompanied by his wife, through the interior, and he reports that the average American has little conception of the potential wealth of these countries and their possibilities of development. They have agricultural and timber resources which offer excellent opportunities for the investment of foreign capital, and should be more generally appreciated throughout the world. Mr. ADAMS will presently prepare some facts with regard to his journey which will be published in the BULLETIN.

THE LONDON TIMES AND LATIN AMERICA.

The Director is glad to learn that Hon. ROBERT P. PORTER, of the "London Times," has started upon an extended visit to the west coast of South America. The "Times" has already shown much interest in the general material progress and development of Latin America, and this trip of Mr. PORTER will probably result in further attention to these countries. Mr. PORTER has just finished a special visit on behalf of the "Times" to Japan, and started to South America immediately upon his return from the Orient. In view of his standing as a writer, economist, and statistician it is expected that good results will come from the journey he is now making.

THE INTERNATIONAL CONGRESS OF AMERICANISTS.

There will meet from September 8 to 14, in the City of Mexico, the second session of the Seventeenth International Congress of Americanists, the first session having been held earlier in the year at Buenos Aires. The Congress will be under the patronage of Gen. PORFIRIO DIAZ, the illustrious President of Mexico. The President of the Organizing Committee is Señor Lic. D. JUSTO SIERRA, Secretary of Public Instruction and Fine Arts, and the General Secretary Señor Lic. D. GENARO GARCÍA, Director of the National Museum. The Vice-President is Señor Lic. D. EZEQUIEL A. CHÁVEZ, Assistant Secretary of Public Instruction and Fine Arts, and the Treasurer Señor Lic. D. JOAQUÍN D. CASASUS, President of the Mexican Central Bank, while upon the committee are the following: Canon VINCENTE DE P. ANDRADE, Member of Mexican Geographical

and Statistical Society; Señor D. MANUEL FRANCISCO ALVAREZ, ex-Director of the Men's Arts and Crafts School; Señor D. LEOPOLDO BATRES, General Inspector and Curator of Archæological Monuments; Señor D. FRANCISCO BELMAR, Member of Mexican Geographical and Statistical Society; Señor D. ABRAHAM CASTELLANOS, Professor of Normal School for Men; Señor Profesor D. LUIS GONZÁLEZ OBREGÓN, Chief of Publication Department of National Library; Señor Dr. D. NICOLÁS LEÓN, Member of Mexican Bibliographic Institute; Señor D. TEOBERTO MALLER, Member of Mexican Geographical and Statistical Society; Señor Lic. D. ANDRÉS MOLINA ENRÍQUEZ, Professor of Ethnology of National Museum; Mrs. ZELIA NUTTALL, Honorary Professor of National Museum; Señor Dr. D. ANTONIO PEÑAFIEL, Chief of Statistical Section of the Department of Fomento; Señor Lic. D. CECILIO A. ROBELO, Honorary Member of Mexican Geographical and Statistical Society; Señor Ing. D. FRANCISCO RODRÍGUEZ, ex-Subdirector of National Museum; Señor Lic. D. VICTORIANO SALADO ALVAREZ, Assistant Secretary of Foreign Affairs; Señor Dr. D. JESÚS SÁNCHEZ, Director of Natural History Museum of Mexico.

These names are sufficient to certify to the importance of this meeting. The work of the Congress will deal especially with the following subjects:

(a) Native American races, their origin, their geographic distribution, their history, their physical characteristics, languages, civilizations, mythology, religion, habits, and customs.

(b) Native monuments and the archæology of the Americas.

(c) History of the discovery and European occupation of the New World.

THE UNITED STATES CONSUL-GENERAL AT SAN SALVADOR.

THOMAS EWING DABNEY, was born in New Orleans, Louisiana, April 16, 1885. He attended public and private schools and graduated from Sewanee University in 1905, taking a master's degree at Harvard University in the following year. He was appointed, after examination, Third Secretary of the Embassy at Mexico City on May 10, 1907, was promoted to Second Secretary March 1, 1909, and on April 4, 1910, was promoted to the dual position of Secretary of Legation and Consul-General at San Salvador.

THE LATIN-AMERICAN CLUB HONORS THE DIRECTOR.

The Director begs to acknowledge with much appreciation the receipt of the following communication from the Latin-American Club of the University of Pennsylvania, signed by its president:

The Latin-American Club of the University of Pennsylvania, in appreciation of the great work you have been doing to promote a better knowledge of the conditions existing in the countries of Latin America and thereby bring about closer and friendlier relations between them and your country, unanimously passed a resolution conferring upon you the highest honor within its power, that of honorary member of the club.

THE DRY FARMING CONGRESS AT SPOKANE, WASH.

Among the various national and international gatherings which are being held in different parts of the country this fall, one of the most important is the Dry Farming Congress, which will have its fifth annual session at Spokane, Wash., United States of America, October 3-6. In connection with it there will be an International Dry Farming Exposition which will contain exhibits showing the practical value of dry farming. In the letter which the Director of the International Bureau has received from the able and forceful secretary-treasurer of the Dry Farming Congress, Hon. JOHN T. BURNS, it appears that special effort is being made to have foreign representatives at this gathering. If the Latin-American countries send delegates, they will be able to see and learn much that would be helpful in developing farming in the arid portions of their respective countries. They might also be able to report progress and good results that have been accomplished in their own lands, which would be of value to the farmers of the United States.

THE NATIONAL CONSERVATION CONGRESS AT ST. PAUL.

Elaborate plans are being made by the National Conservation Congress of the United States, which meets at St. Paul, Minnesota, September 5 to 9, inclusive, to make it international as well as national in its character. Invitations have been extended to foreign countries and to their diplomatic representatives in Washington, urging that each foreign nation send delegates. President B. N. BAKER and Executive Secretary THOMAS R. SHIPP have informed the Director that they sincerely hope that each American Republic will participate, either by sending special delegates or by authorizing their diplomatic representatives in Washington to attend. The Director, moreover, has been requested to deliver an address on the subject "What our Southern Neighbors are Doing in Conservation."

VISIT OF EDITOR JOHNSTON TO SOUTH AMERICA.

Mr. FRANKLIN JOHNSTON, the manager of the "American Exporter," published in New York City, has recently returned from an extended trip through Latin America, studying commercial conditions. He is very optimistic and is even enthusiastic over the opportunity for the development of trade between the United States and the countries lying to the south of it. He believes that they all have a great future before them, and that American business men are getting a start and hold which can not fail to lead to profitable results. Visits made by such men as Mr. JOHNSTON, who is a keen observer, are sure to be of help in informing the business men of both North and South America about ways and means of building up trade.



HON. THOMAS EWING DABNEY,
United States Consul-General at San Salvador, Salvador.

PUBLICITY FOR PORTO RICO.

The Director of the International Bureau is grateful to Mr. FRED P. FOX, manager of the Porto Rico Association of San Juan, P. R., for forwarding a number of the publications which are being sent over the world to inform people about that progressive country. This matter bears such interesting titles as "Porto Rico a Prize Package;" "Do You Know Porto Rico?" "Practical Pointers About Progressive Porto Rico;" "The Treasure Island;" "America's Gibraltar." The association is also distributing in both English and Spanish interesting addresses made by Col. WILLIAM JENNINGS BRYAN and Hon. GEORGE R. COLTON, governor of Porto Rico, before the Porto Rico Association.

INTERNATIONAL CONGRESS OF ESPERANTISTS.

From the 14th to the 20th of August, the Sixth International Congress of Esperantists was held in the City of Washington. There were delegates present from a great many foreign countries, including several of the Western Hemisphere. The President of the national organization of the United States is the Director of the Bureau, but unfortunately he was unable to be present on account of absence from Washington. The reception which was to have been given to the delegates in his name in the new building of the International Bureau was canceled owing to the death of the President of Chile.

"THE PROGRESSIVE STENOGRAPHER" ON LATIN AMERICA.

There is before us an interesting little article entitled "Our Trade Relations with Latin America," written by H. E. BROWN, Manager of the Spanish-American Bureau, New York City. It appeared in "The Progressive Stenographer," and is another illustration of the growing interest in the Republics of Central and South America. The article contains many facts that should be read by persons who wish to know more about trade possibilities in those countries.

THE UNITED STATES CONSUL AT ASUNCION, PARAGUAY.

CORNELIUS FERRIS, jr., was born in the State of Michigan on March 26, 1866. He attended Johns Hopkins University, and graduated in law from Harvard University, with the degree of LL. B. in 1893. He was later employed as a bank clerk, but engaged in the practice of law in Denver, Colorado, being admitted to the bar in that State in 1892, and was city attorney of Fort Collins, Colorado, for four years. He received his present appointment as consul at Asuncion, after examination, on May 31, 1909.



Photograph by Harrie-Ewing.

CORNELIUS FERRIS, JR.,
United States Consul at Asuncion, Paraguay

SPECIAL ARTICLES BY MR. BALLARD.

The International Bureau is glad to notice that Mr. WALTER J. BALLARD is writing special articles on Latin America. He sets forth his facts in a bright, interesting style, and they should be widely read. A few years ago it was almost impossible to get any special writers in the United States to take up the description of the resources and possibilities of the other American nations, but now that is changed, and the International Bureau finds it difficult to supply all of them with the information which they seek for the preparation of their contributions to the press.

AN ADDRESS BY MR. RICARDO VILLAFRANCA.

There has been laid upon the desk of the Director an interesting little pamphlet entitled "Latin-American Commercial Possibilities, the Obstacles Encountered and How They May Be Overcome." It is an address by Hon. RICARDO VILLAFRANCA, former Consul-General of Costa Rica to California, United States of America, and an authority on commercial conditions in Central and South America. It was delivered before the New York Division of the National Sales Managers' Association of the United States at the rooms of the Aldine Association, June 9, 1910, and contains many practical suggestions which should be read by those who are studying the best methods of developing trade between North and South America.



BOOK NOTES

"Brazil in 1910." By J. C. OAKENFUL. Second edition. Published by the author at 21 Clifford Terrace, St. Budeaux, Devonport, England, March, 1910. [6], 280 p. Illustrated. Folding map. Size 5 x 7½ inches.

The author gives us a revision of his excellent book of 1909, and we sincerely congratulate him on the result of his endeavors. Mr. OAKENFUL has compiled a vast amount of valuable information concerning the resources of Brazil, and has gone about his work in a thoroughly conscientious manner, covering a wide range of subjects, from geography and topography to literature and art; but with the skill of a trained writer he has included the whole within a book of reasonable and convenient size, suitable for the lay reader.

The writer is most enthusiastic as to the future greatness of Brazil, and there can be no doubt but that his book will show to many the high road to prosperity in the great Southern Republic, bringing to its shores a large number of those who will work for the progress and development of this country of the future.

A limited number of Mr. OAKENFUL's book are for distribution upon application to the Bureau.

"South American Fights and Fighters and Other Tales of Adventure." By CYRUS TOWNSEND BRADY. New York, Doubleday, Page & Co., 1910. x (2), 342 p. Illustrated. 8°. Size 5½ by 8¼ inches. Price \$1.50.

It is to be doubted if any other period of history evolved more of the spirit of romance and adventure than that following immediately after the discovery of America by COLUMBUS. In Spain, the war that had terminated with the expulsion of the Moors was coincident with the concluding decade of the age of chivalry, but the capture of Grenada and the surrender of the last of the Moorish monarchs left numbers of the Spanish knights and soldiers in the plight of that other Moor, made famous by the great poet, "with occupation gone." It is no matter of surprise, then, that the last of these knights errant were lured to the countries of the New World by hope of further "honorable advancement" and the accumulation of spoils; for the tales of free gold, to be picked up in almost any part of the land discovered by the intrepid Genoese, make the extravagant narratives of modern mine promoters seem amateurish by comparison. It is not to be wondered, then, that New Spain was soon overrun by brave and hardy gallants seeking to retrieve their broken fortunes. Some of those who came were gentlemen and men of honor, as CORTES, OJEDA, and BALBOA, while others were not, as PEDRARIAS and PIZZARO—but all were brave beyond measure.

Doctor BRADY, who has written so many stories of fights and fighting men in such a vivid style, has the facile pen best suited to tell us of the adventures of "*Los Conquistadores*," the Conquerors (we think they well merited the name their doughty historian. BERNAL DIAZ, who was one of them, chose for his comrades), and the author, in his book, tells us in an intimate and entertaining way of the extraordinary trials and sanguinary combats of the Spanish fighters in America.

We are a little disappointed that the author does not write more extensively concerning the adventures of ALONZO DE OJEDA; for, while admitting that his work left little imprint on the page of history, yet this diminutive tigerman was such a fascinating personality, possessing, as he did, superhuman courage combided with a fanatical devotion to an ideal, in our judgment, makes the story of his life worthy of greater elaboration. Few, especially in the United States, have more than a rudimentary knowledge of the early history of this continent, and we recommend CYRUS TOWNSEND BRADY's book to all who would wish to gain some acquaintance with this period of history.

"Sugar: A Handbook for Planters and Refiners." By the late JOHN A. R. NEWLANDS and BENJAMIN E. R. NEWLANDS. London, E. and F. N. Spon. New York, Spon & Chamberlain, 1909. xxxvi, 876 p. Diagrams. Plates. Size $5\frac{1}{4}$ by 9 inches. Price, 25 shillings.

This book, in its 850 pages, would seem to contain all the information extant on the cultivation and treatment of saccharine plants with the object of producing sugar. The comparison of methods in vogue in different countries, which are carefully described, should be of great value to all sugar planters, for in all agricultural work much is learned from the experience of others; and, as it is generally admitted that the great desideratum in cane cultivation is an increased yield of sugar from a given weight of stalk, therefore the results of experiments conducted with this end in view merit the attention of all interested in cane planting. The simple fact that canes, growing erect, enjoy more sunlight and air, and in consequence yield more juice than others bent or growing near the ground, is of importance.

The writer gives interesting data relative to the development of cane-crushing machinery from the time of the hard-wood mortar and stone pestle of India to the modern 9-roller mill of Louisiana. The chapters on palm sugar, maple sugar, and melon sugar, are interesting; while the cultivation of beet sugar, and its curing, form the subject of five chapters of the book.

Sugar refining is covered from the selection of a site for the refinery to the process of filtration of crystals; and several chapters are devoted to the by-products of saccharous plants. In an excellent book it is unfortunate to find such a fault of composition as an incorrect caption. On page 27, line 3, it is stated that the frontispiece shows a plantation of black-tanna canes, while, in fact, it is an illustration of the date palm. However, this is a solid work that should be in the library of all sugar planters.

"Pan-Amerika, Entwicklung, Umfang und Bedeutung der pan-amerikanischen Bewegung." (Development, extent, and significance of the Pan-American movement) (1810-1910), by ALFRED H. FRIED. Printed by Maritima Publishing Company, Berlin.

This book of 300 pages is, as the author states, the first attempt to present to Europe, or rather to the German student, a systematic account of the growth of the Pan-American idea. The historical movement of the early part of the last century, the former efforts on the part of Bolivar and others to arouse and unify an international American sentiment, the theoretical and practical basis upon which the growth of this sentiment has been perpetuated, have been carefully discussed by the author. Special chapters are given to the history and accomplishment of the first three Pan-American Conferences; an outline of the present Fourth Pan-American Conference is also given, while the concluding chapter carefully examines the future and the possibility of the further extension of Pan-Americanism. As an historical presentation of the whole matter, the book is well worthy of a prominent place on the shelves of every library, and as an examination of one of the most unique problems of the political development in the history of the world it merits the serious regard of all history students who give particular attention to what the Germans call *Welt-Politik*.

"The Advertiser's A B C." The standard advertisement directory. Compiled and published by T. B. BROWNE (Limited). London, 1910. 991 p. Size 7 by 10 $\frac{1}{4}$ inches. Price 10 shillings, 6 pence.

Containing a list of the most important advertising media of the world, this is an excellently gotten up volume. The T. B. Browne Company, who publish the work, conduct also one of the most important advertising agencies of the United Kingdom, and the specimen pages of their work are exceptionally fine examples of advertising

art. We use the word without apology, for modern commercial conditions demand standards so high in composition of pictorial announcements that much real artistic talent is employed in this character of work. This company has facilities for placing advertisements in periodicals throughout the world, but we notice with surprise that "La Prensa," published in Buenos Aires, and the newspaper of the same title published in Rio de Janeiro are omitted from the list of Latin-American advertising media.

"The Statesman's Yearbook for the Year 1910." Edited by J. SCOTT KELTIE, with the assistance of I. P. A. RENWICK. New York and London, Macmillan & Co., 1910. civ, 1404 p. Map. Size 7 by 5 inches. *Price 10 shillings, 6 pence.*

An epitome of information, economic, financial, and political, of all countries. A perusal of this indispensable reference book shows that the usual care has been exercised in bringing the material contained therein up to date.

"Who's Who in Mining and Metallurgy." 1910. London. The Mining Journal. xiii, 290. xxvi-xxxix p. Size 8½ by 5½ inches. *Price 15 shillings, net.*

Containing the biographies of all the more prominent mining engineers, and a list of the different mining societies with their principal officers. An excellent reference book for all interested in metallurgy.

"The Rescue of Cuba. Marking an Epoch in the Growth of Free Government." By ANDREW S. DRAPER. New York, Silver, Burdett & Co. [1910?]. 235 p. Plates. Size 5 by 7½ inches. *Price \$1.*

This is the story of the Cuban campaign of 1898, with a general review of the events that led up to it described in popular style. It is essentially a schoolroom book, and might be criticised for a rather severe arraignment of the Spanish character from the reign of FERDINAND VII to the time of ALFONSO. In the light of the modern peace movement, anything that tends to engender national antagonisms should be avoided, and an intimate acquaintance with Spanish officers and soldiers leads us to state that they are not fairly pictured by the author. Professor DRAPER, however, has compiled a great deal of information on his subject, and, as he relates the story of the various incidents in vivid style, his book should serve as an inspiration to the youth of America.

"Prince Izon. A Romance of the Grand Canyon." By JAMES PAUL KELLY. Chicago, A. C. McClurg & Co. 1910. 399 p. Colored plates. Size 5½ by 8¼ inches. *Price \$1.50.*

A fanciful story, having for its theme the adventures of two American girls among the Aztecs. The author accounts for the presence of the Aztecs at this late date by a theory of immigration that brought them to the Grand Canyon, to reside unknown until modern times. In describing the book no better adjective than "thrilling" suggests itself.

WHAT IS IN THE MAGAZINES

"*The Progress Magazine*" for July, 1910, contains a very timely article on Buenos Aires, "**The Fourth City of America**," by DANIEL SHOORSMITH. He takes up the history of the city from its foundation, in 1536, and continues the tale of its development down to the present day. But the story of the earlier growth of Buenos Aires has little of exceptional interest in a commercial way; it was as late as 1869 that the real commercial development was under full headway.

In speaking of the remarkable increase in the population of Buenos Aires, the article says:

In 1869 it had 178,000 and in 1893 its citizens numbered 535,000. Its greatest growth has been since then, and to-day, in 1910, the first centenary of Argentine independence, it has 1,300,000 inhabitants, thus ranking as the fourth city of America and running close behind Philadelphia with its 1,545,800 citizens.



(Courtesy of The Progress Magazine.)

THE STOCK EXCHANGE.

The excellent architectural style of this building, reflecting the good taste of the Argentinos, is typical of all public and semipublic edifices in the city.

It is equal in size to Washington, covering 70 square miles, and larger than Paris, Berlin, or Vienna. * * * While the city of Buenos Aires can not boast the antiquity of the great European capitals, it may fairly lay claim to the rank of the greatest in regard to its movement, life, and advanced civilization. Standing

second only to Paris itself as a Latin center, Buenos Aires is a positive revelation to the travelers who see it for the first time.

The magnificent avenues and parks with which it abounds, the palatial buildings and residences, luxurious clubs and theaters, the extensive and well organized tramway service, the high standard of education obtaining among the better classes, the style, dress, and manners of the people, the immense display of electric light, the incessant activity, the vast amount of shipping, and indeed every phase of life combine to give Buenos Aires something of the movement of New York, with the brightness and gaiety of Paris. It is, moreover, a cosmopolitan city in the truest sense of the word. Nor is it an exaggeration to institute a comparison of the appearance of the "Corso" or carriage drive along the imposing Avenue General Alvear in the direction of Palermo Park, filled by fashionable folk in elaborate equipage, with the familiar sight of Central Park, New York, in the height of the season.

In the upbuilding of this great South American metropolis all the nations of Europe have taken part. Previous to 1880 there was only a flat mudbar along the water front of the city, extending several miles out into the River Plate. Ships were obliged to anchor about 12 miles from the shore. To and from them



Courtesy of The Progress Magazine.)

THE PLAZA HOTEL

There are many modern hostelries in Buenos Aires, where the traveler will find accommodations equal to any in the world. This picture shows one of the most recently erected hotels.

the goods and passengers were transferred in lighters and launches; then by small boats the passengers were brought to the passenger mole when the water was high enough, and when it was not, great wheel carts, made for the purpose, were used, and in this fashion they were at last brought to the land. A custom-house mole extending out some distance, a passenger mole at a lesser distance, and a private goods mole, with which two of the railroads connected, constituted the facilities in that part of the port. * * *

Later on LOUIS A. HUERGO, a prominent Argentine engineer, proposed a general plan of a modern seaport. It was to be an open port without tidal locks or gates and deep enough in the slips and along the front of the piers for the largest liners. The piers were to extend toward the south channel, which at the time was the only one in existence. The proposition was accepted by the Government and the work carried out by a London firm at a cost of \$40,000,000. When this undertaking was first proposed, the tonnage of the port was only 644,570, and it was thought that a port providing for 2,000,000 tons would be ample. But when the docks were completed at the southern end the tonnage of vessels arriving and departing had already reached 4,507,096, and in 1899—not long after they were opened to commerce—it

had reached 9,285,279 tons. To-day the service from Europe to Buenos Aires includes three Italian lines, two French, two English, two German, one Spanish, and one Danish, giving a regular weekly and biweekly service to and from Genoa, Bordeaux, Marseille, Liverpool, Hamburg, Bremen, and Barcelona. * * *

These docks and wharves of the city of Buenos Aires are the finest in the world and connect with over 20,000 miles of railroads, reaching every part of the Republic. Numerous new roads, branch routes, and feeders are being constructed and planned, and it is possible to reach almost every portion of this wide area within forty-eight hours of the capital. A fine custom-house is at present being built at a cost of \$1,650,000. The harbor and docks are being improved and extended, and a ship canal is being built at a cost of \$47,000,000 between the Las Palmas and Parana rivers. Every part of the city, even the most distant suburbs, is reached by the finest street-car system it is possible to imagine, mostly electric, all owned and run by private companies and carrying an annual traffic of 125,000,000 passengers. The city is now getting ready to build an intricate system of underground railways beneath the principal streets. * * *

From a commercial point of view there are few cities more prosperous than Buenos Aires at the present time. The city has 811 establishments devoted to the manufacture of furniture of all kinds, and the impor-



(Courtesy of The Progress Magazine.)

A RESTAURANT IN PALERMO PARK.

* The park is the great sporting rendezvous. Here the races are held, the horse shows take place, and polo contests are decided. The illustration shows an outdoor café of the type so well known in Paris.

tations of furniture have in consequence almost ceased. Within the limits of the city of Buenos Aires alone there are 986 establishments for the working of metals; 1,210 for preparing hides; 1,178 for timber; 748 for cereals; 1,657 spinning establishments; 280 establishments for the manufacture of articles of glass and wax; 51 for the manufacture of chemical products; 26 for manufacturing grocery products; 168 distilleries; 268 cigar and cigarette manufactories, and 1,044 other kinds of manufactories, making in all a total of 7,619 industrial establishments. Twenty-five years ago all the flour used in Argentina was imported. In 1908 that country exported \$4,696,934 worth of flour in addition to \$82,727,747 of wheat, and the grand total of exports of agricultural products amounted to \$164,000,000. The most important industries of the country are as follows: Meat freezing, representing a capital of \$31,000,000; breweries, a total capital of \$16,950,000; flour milling, a total capital of \$11,357,000, and paper mills, \$6,489,000. There are in Buenos Aires 400 cafés, 30 subpostal and 18 subtelegraph stations, 32 Roman Catholic churches, and 17 chapels and 4 Protestant churches of the Anglican, Scottish, Lutheran, and Methodist denominations.

We quote so extensively from this article in order to give our readers some idea of the great city where the Fourth Pan-American Congress is now being held.

"**The Slave Trade in the Spanish Colonies of America**," translated from the French by Mrs. EDNA K. HOYT, of the Department of State, Washington, D. C., appearing in the July number of the "*American Journal of International Law*," is an able discussion of the conditions that gave the slave trade its great impetus during the early days of the Spanish colonization. This article was written by Prof. G. SCHELLE.

The Journal also makes editorial reference to the Orinoco Steamship Company arbitration, which will be brought to the attention of the Permanent Court at The Hague next September.

In the supplement will be found the texts of a number of official documents, some of which deal with Latin-American affairs, such as: Secretary KNOX's note to the Nicaraguan Chargé d'Affaires, December 1, 1909; note of the Secretary of State of the United States, inviting the Republics of America to a Pan-American Congress; (Secretary of State BLAINE's original letter); text of the Arbitration Convention between the United States of Brazil and China; treaty between the United States of Brazil and the Oriental Republic of Uruguay, modifying their frontiers to Lake Merim and the Jaguarão River, and establishing the general principles for commerce and navigation in those places; Naturalization Convention between the United States of Brazil and the United States of America (Treaty series, 547); list of members of the Permanent Court of Arbitration.

In "*The Geographical Journal*" (London) Dr. HAMILTON RICE contributes an illustrated descriptive article of his exploration of the Rio Uaupes, furnishing also an excellent map of the hitherto unknown course of this river. The author is a distinguished authority on the interior of South America and his article will be read with pleasure by all interested in this subject.

"*The National Geographic Magazine*," for May, 1910, contains an article entitled "**The First Trans-Andine Railroad from Buenos Aires to Valparaiso**," by Mrs. HARRIET CHALMERS ADAMS. The whole story of this interesting engineering work, from its inception to its completion, is described in a thoroughly lucid manner. Mrs. ADAMS has visited all of the countries of Latin America and anything she may write on subjects similar to the one she treats of here is sure to add to our stock of general knowledge. She has a charming style and a knack of expression that makes the reading of anything from her pen a distinct pleasure.

In the same magazine for June there is an article by Mr. H. PITTIER, "**Costa Rica—Vulcan's Smithy**," which embodies a description of the Poás Volcano, with many excellent photographs of the crater of the same.

In the July number, "**Guatemala, the Country of the Future**," is described in popular style by Edine Frances Tisdell. The author shows first-hand knowledge of conditions in the Guatemalan Republic, giving us a well-illustrated description of this country and the wonderful resources which are only now known to the outside world.

"**All America!**" a discussion of conditions in the Latin-American countries, by JOHN BARRETT, Director of the International Bureau of the American Republics, that appears in the August number of the "*North American Review*," is worthy of the careful perusal of all interested in the development of these countries. Mr. BARRETT, in this article, states facts in a clear-cut style that will be a revelation to those who assume an air of patronage toward the citizens of our sister southern Republics.

"**Railways in South America**" is the theme of the entire number of the "*Railway Gazette*" for May 25, 1910. This excellent bilingual edition of this magazine, besides the numerous illustrations which will help to give a vivid idea of recent railway development in South America, contains a review of the railway situation in all of the Latin-American countries, from Brazil to El Salvador. The editors are to be congratulated upon their work; bringing in a convenient form considerable valuable data on the railway industry in Latin America.

The "*Inca Chronical*," July, 1910, which appears as the number commemorative of the eighty-ninth anniversary of Peru's independence, is a remarkable achievement of the gentlemen associated in editing and publishing this magazine. We sincerely congratulate these co-workers on this last number, the most successful issue that has come to our desk from La Fundicion, a town on the top of the Andes.

In "*Moody's Magazine*," June, 1910, Prof. W. P. GEPHART contributed an article entitled "**Trade of the United States with South America**," which contains illuminating statistics. This being a subject that is of special interest to the readers of the BULLETIN, we quote a significant paragraph:

There are abundant reasons for a large and profitable trade between the United States and South America and the only danger is that in pursuing our present policy of maximum temporary returns, we will make it possible for our competitors to secure an increased dominance of these markets. The cost of securing these markets is certain to be very great, and since the merchant classes are interested in the present profits, they will hardly be willing to make expenditures from which future generations will benefit.

We hope that the professor is in error in his estimate of such a short-sighted policy on the part of American merchants.

"**Our Chance in South America**" is the title of an article by CHARLES JOHNSON POST, which appears in the "*Success Magazine*" for June. In this article Mr. POST tells just what qualities the American salesmen lack which are so essential in dealing with the Latin-American peoples. The article is very readable and instructive and shows how, in Latin-American countries, a pleasing personality will be a great help in pushing any business enterprise.

In the "*Popular Science Monthly*" for July, 1910, the first article, by Dr. CHARLES HASKINS TOWNSEND, director of the New York Aquarium, tells of the work of a naturalist in the Straits of Magellan. Doctor TOWNSEND followed in the wake of the British ship *Beagle*, when that vessel carried Darwin on one of his voyages of research.

"*Mines and Minerals*" for June, 1910, contains an article giving the latest available data on mining and mineralogy in Chile, by F. A. SONDT.

Another illuminating article on the trade of Latin America appears in "*Foreign Trade*" ("*Comercio Extranjero*"), for June, in which Mr. JOHN BARRETT, Director of the Bureau of American Republics, reviews the year's exchange of products between the United States and Latin-American countries. Mr. BARRETT's article is in Spanish and should be of extreme interest to all interested in Latin-American trade.

"*The Brill Magazine*," published by J. G. Brill & Co., for June, contains a short illustrated article describing the new cars furnished the Central Buenos Aires Railroad by that company. These cars are a sample of the latest thing in railroad coach construction.

In the June number of "*The Bookkeeper*," CHARLES A. SWEETLAND, in an article entitled "**An Audit in Mexico**," gives a short account of the banking methods in vogue in that country.

In "*The Bulletin of the American Geographical Society*," for May, the leading article, entitled "**The Caverns and People of Northern Yucatan**," by Prof. LEON J. COLE, is a study of the ancient cities of the Mexican peninsula, especially the Cenotes and the hydrographic conditions there.

In the same number, Prof. J. RUSSELL SMITH, of the University of Pennsylvania, has an interesting article entitled "**Developments of Commercial Centers**," in which he shows how a store at the country crossroads may develop into a great commercial center.

The June number of this magazine contains a map showing the new boundary between Bolivia and Peru as determined by the commission under Maj. P. H. FAWCETT. The map is compiled in accordance with the letter of the treaty and with the aid of the official map materials submitted by the consul-general of Bolivia in New York.

The "*American Journal of Archaeology*" for June contains an article by Prof. S. G. MORLEY treating of the co-relation of Maya and Christian chronology. The little available data that we have that will enable us to determine relative periods of time in Mayan history makes Professor MORLEY's deductions, based on the books of CHILAM BALAM, of considerable importance, and his ingenious marshaling of data shows that he has devoted much time and thought in evolving his theory.

The "*American Exporter*" for July contains two articles of Latin-American interest. The first, entitled "**Southward, Ho!**" by WILLIAM JENNINGS BRYAN, showing how the youth of the United States, instead of following the famous advice of HORACE GREELEY to go west, should turn to South America in search of new opportunities.

FRANKLIN JOHNSTON gives us, under the title of "**Our Trade with Argentina**," the details of American commerce with that country, showing how exports from the United States are growing at the rate of 20 per cent a year.

"*Pan-American Review*."—The first number, which appeared in July, published in New Orleans, is a bilingual periodical devoted to Pan-American subjects, and advancing the claims of the city of New Orleans as the point for the holding of the exposition in honor of the opening of the Panama Canal.

In "*The Bookkeeper*" for July, 1910, Mr. NEVIN O. WINTER, a well-known writer on Latin-American topics, gives a story of "**Simple and Systematic Life of the World's Coffee King**."

In "*The World To-day*" for July, THEODORE K. LONG writes on "**The Security of Investment in Mexico**."

"**Making the Cactus Pay**," by S. R. MITCHELL, in the "*Technical World Magazine*," is an article showing how this hitherto useless vegetation can now be made of economic value.

In "*The New Age*" for July, under heading "**The Social Side**," PORTIA BRENT advocates the selection of Washington for the celebration of the opening of the Panama Canal.

"**The American Salesman in Pan America**" is the title of an article in the "*World To-day*" which can be read with profit by any mercantile representative intending to make a South American trip.

"*Tea and Coffee Journal*" gives the substance of a paper read at the annual meeting of the Flavoring Extract Manufacturers' Association entitled "**Chemistry of Vanilla Beans**," by SAMUEL ISERMAN.

In the "*Technical World Magazine*" for June, CHARLES FREDERICK CARTER describes the Salina Cruz-Puerto Mexico Railroad that crosses the Isthmus of Tehuantepec, under the title "**Great Rival of Panama**."

The July number of "*Travel and Exploration*" gives the adventures of Mr. B. M. ACKLAND, who made the trip across the continent of South America from Para to Pacasmayo, the journey being fraught with numerous dangers and hardships.



ONE OF THE FALLS OF THE MADEIRA RIVER IN BRAZIL.

Such falls as these impede the navigation of this river for about 200 miles. This necessitated the building of the Madeira-Mamoré Railroad.

ARGENTINA'S CENTENARY CELEBRATIONS AND EXHIBITIONS

A SPLENDID spectacle was recently offered to the world in the city of Buenos Aires. The occasion was the celebration of the one hundredth anniversary of Argentine independence. The date was the 25th of May, 1910.

Buenos Aires in itself is a beautiful city, and to those who see it for the first time it recalls the fineness and elegance of the capitals of Europe. Argentina is a wonderful country, and the traveler is astonished at the evidences of what has been accomplished there, yet he is even more astonished at the promises for future development in that land of unlimited possibilities. But on this memorable day the past and the future met, and the visitor to Buenos Aires who was so fortunate as to witness this spectacle was given an opportunity to prophesy the future from the past. It is wise, therefore, to remember what that past was, in order to secure a fitting background for the magnificent spectacle which has just taken place.

During the past century a whole continent has grown into maturity. What was at that early time an almost undiscovered and unknown land has now become one of the most productive regions of the world. The provinces of Spain, but loosely tied to the mother country, declared their independence from the Old World, and in fighting for it they showed that spirit which was ultimately to prove them worthy of self-government.

The year 1810 is the date in which the most effective action was taken. Efforts earlier than this had been made. In every Republic of South America the cry for freedom had been already raised, but this was only preliminary to the successful struggle which then began. Every Republic, too, has its natal day, and each has prepared for this memorable anniversary some national celebration in honor of the day and date. All of them, however, generously recognized this great demonstration, commemorative of the centenary of the struggle for liberty which took place in the capital of the Argentine Republic.

The 25th of May, 1810, was the date on which the famous *junta* of the revolutionary party in Buenos Aires was appointed and began to

act, and this day, one hundred years later, was therefore selected by the National Government of Argentina for the international festivities to mark their centennial anniversary.

The 25th of May, 1910, marks a new epoch in the history of South America. Its significance can be well compared to the 4th of July, 1876, in North America. Indeed, conditions are very similar in the



Courtesy of La Ilustracion Sud-Americana.

THE AVENIDA MAYO, BUENOS AIRES, DURING THE CENTENNIAL CELEBRATION.

The 25th of May, 1910, marked the one hundredth anniversary of Argentine independence. In the city of Buenos Aires a magnificent ceremony occurred on that date in which probably 2,000,000 persons took part. The streets were brilliantly decorated. The corner stone of a monument to independence was laid, and at its conclusion a splendid military and naval review was held. In the evening public entertainments were given, during which over 700,000 extra electric lights made the city streets a veritable fairyland of illumination.

corresponding centuries embraced by the national life of the English-speaking Republic of North America and by that of this Spanish-speaking Republic of South America. The independent, organic life of the Western Hemisphere covers the period of greatest material expansion in the world. One hundred years ago the mouth of the Rio de la Plata was reached only after a tedious voyage in a sailing

ship, drawn out at times to more than seventy days. No telegraph lines connected the old and the new continents; news was conveyed in a slow and insecure fashion, and travel by land had not advanced beyond the mediums of the middle ages. The horse, the pack animal, and the stage coach were the only means of communication, excepting the sturdy messenger of the Indians who crossed the mountains and the pampas on foot. The European, when once he had touched the shores of Argentina, was compelled to remain there for months, uninformed of the events occurring so far away from his new home.



Courtesy of La Ilustracion Sud-Americana.

PRINCESS ISABEL OF SPAIN, WITH PRESIDENT ALCORTA OF ARGENTINA AND
PRESIDENT MONTT OF CHILE.

The Infanta Isabel of Spain was sent by that Government as its special representative at the centenary celebration of Argentine independence. She herself bore the congratulations of the mother country to the vigorous young Republic across the sea, and with genuine goodwill she saluted the flag of the country. The people of Buenos Aires were most cordial in their reception of her and appreciative of her old-world courtliness.

To-day, Argentina and the mouth of the River Plate are as much a part of the great world as is Spain, Greece, Japan, or the United States. Submarine cables keep the nation in close touch not alone with Europe but with all corners of the earth. Swift steamers of most modern and commodious build race between the port of Buenos Aires and those of both Europe and America, while the growth of land transportation throughout South America in general, and in Argentina in particular, has been so phenomenal that no section of the great Republic needs to feel any such isolation as clouded the early settlements in the United States at the base of the Rocky Mountains scarcely fifty years ago.

Two factors have combined to produce in the people of the Argentine Republic a spirit of exultation at the end of their hundred years of independence. In the first place, they have brought their country to a point where, as a government, it merits and receives the respect and praise of all enlightened students; and in the second place, they have, within their country, accomplished a material development in agricultural productiveness and in the facilities for land transportation which astonishes everyone who watches the march of human events.

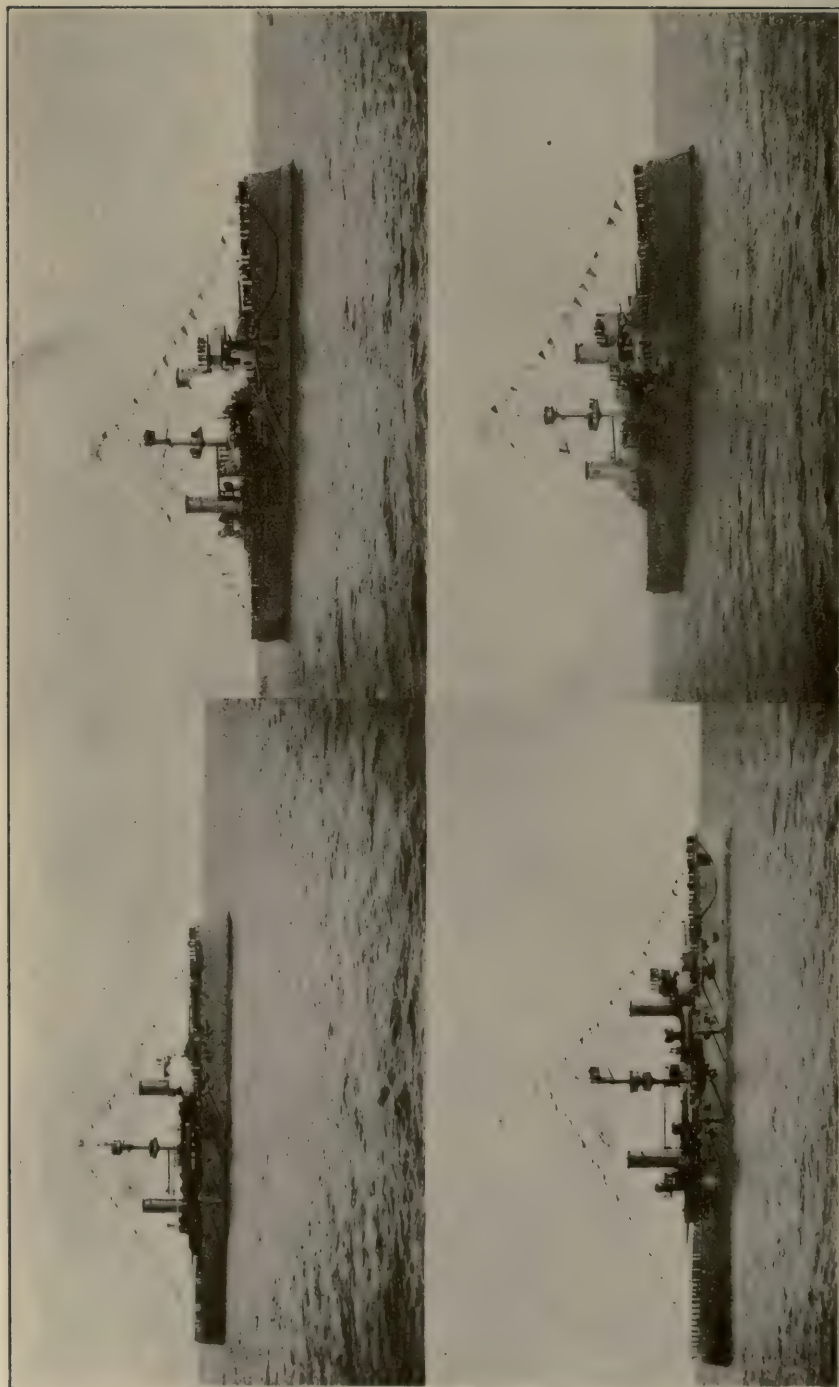


Courtesy of *La Ilustracion Sul-Americana*.

ARGENTINA THE HOST AND CHILE THE GUEST.

President Montt of Chile and President Alcorta of Argentina appeared many times together during the centenary celebrations of the *Semana Mayo* in Buenos Aires. President Montt was the guest of the Argentine nation during that week, having entered the country through the recently operated trans-andine tunnel. His passage across the Republic to Buenos Aires was marked by a series of hospitable greetings, and in the capital itself his cordial reception by the people was everywhere a feature of the festivities.

It was fitting, therefore, that the Argentine Republic should prepare a celebration in Buenos Aires, the capital and chief commercial city of the nation, in honor of the one hundredth anniversary of their declaration of independence. From the very beginning this celebration assumed international significance. The sister republics of Latin America most cordially responded to the invitation to take part in the centenary, and with equal good will the governments of the United States, of the various countries of Europe, and of Japan joined in the spirit of the occasion and sent representatives to show



ARGENTINE BATTLE SHIPS BEFORE BUENOS AIRES

One of the greatest naval reviews in the history of American waters took place in May in the Río de la Plata, in front of Buenos Aires, during the celebrations of the Argentine Centennial. Nearly 50 men-of-war from Europe, America and Asia were in the line. The Argentine Navy was well represented with modern vessels of this type.

their sympathy and to declare their wishes for success in the century ahead of the stalwart nation. Almost spontaneously, therefore, it would seem that this celebration took form, and that its manifestation should be expressed in two directions. One, a great national festivity, in which the hundredth anniversary should be vividly impressed on the heart and memory of the people; the other, a more material presentation of the nation's progress, which should be illustrated by a series of expositions, both national and international in character, in which art, industry, and commerce should be presented.

The centennial celebration itself was a revelation. It was splendid. The pageants, beautiful in themselves, were reinforced by the mechanical advantages and genius for organization of the present. Only the artistic mind of the Latin could conceive it; only a Latin people could realize such a perfect success. Banquets, receptions, and dedications are modern, but the spirit of the event was an inheritance which came to its fullest bloom under the inspiration of America and the genial climate of Buenos Aires.

Buenos Aires was crowded to the limit; the streets were alive with residents and visitors all day and all night long. The beautiful Avenida Mayo, even in ordinary times the scene of animation and the center of Argentine activity, was turned into a wonderful arcade of decorations, arches, banners, and illuminations. Florida, the narrow street of fashion, with its hotels, clubs, and shops, comparable only to Piccadilly or Bond street in London, was so bright with colored flags that the fronts of the houses were hidden behind them. By day every fountain played, every statue was adorned with flowers, every public building was draped its brightest with the national blue and white; the parks and residential portions of the city were equally in gala dress; while the populace, more than ever light hearted and enthusiastic for their native or adopted country, let no chance escape to show that they were prepared to prove themselves worthy of this bright festival.

A festival it surely was, extending over many days. Public functions began as early as the 11th of May and ended only on the 10th of June. There were guests from many countries of the world; there were national and international meetings, congresses to discuss literature, science, and economics; and socially the city was unrelaxing in extending to visitors of every degree an unbounded hospitality.

Special mention must be made of such interesting events as the entertainment of the pupils of the Chilean Military School, who came in a body from their own country to take part in the celebration; the inauguration of several monuments to South American heroes—SAAVEDRA, PEÑA, PASO, CASTELLI, LARREA, MATHEU, and ALBERTI—as well as others commemorative of notable events in American history; the reverential homage paid to SAN MARTIN by numerous exer-



FACSIMILE OF DESIGN USED ON POSTERS ADVERTISING THE CENTENNIAL EXPOSITION AND INTERNATIONAL EXHIBITION OF RAILWAYS AND LAND TRANSPORT BEING HELD IN BUENOS AIRES, ARGENTINA.

cises in his honor; the opening of a Centenary Park within the city; and the planting of a historical tree. The list seemed endless, yet interest did not slack nor enthusiasm wane. Holiday making and patriotism was in the air.

Several functions, however, stand out prominently above all others, and these deserve special notice, to be recorded permanently as sig-



From *La Ilustracion Sud-Americana*.

ART GROUP SYMBOLIZING ARGENTINE PASTORAL LIFE.

One of the attractive exhibits held this year in Buenos Aires is that devoted to art. There is an Art Exposition, in which painting and sculpture are given proper place. Many large groups are, however, placed in the open, and this heroic piece of statuary decorates the front of the German section in the land-transport exhibition.

nificant of the great occasion. The first in order of sequence was the reception by the President of the Argentine Republic of Her Royal Highness the Infanta ISABEL, who was sent by Spain to be the official representative of that Government. She arrived in the port of Buenos Aires May 18, and was greeted with military honors, but at the same time the reception given her by the people of the Republic

was a sincere and earnest one, showing that a deep-seated affection rested in the hearts of the Argentino for the mother country, just as many of the inhabitants of the United States look to England as the source of much of their inspiration.

The second great event was the review of foreign and Argentine naval squadrons lying in the harbor by the President and the assembled diplomatic corps and guests. This took place on May 21. It was a sight unparalleled in the Rio de la Plata. There were gathered together from all points of the compass 47 men-of-war. Of these, 28 were of the Argentine navy and the others from the United States of America, Germany, France, Italy, Portugal, Holland, Austria, Spain, Uruguay, Chile, and Japan. But in addition to this formal array there were thousands of merchant vessels, steam yachts, ocean liners, and such craft, in line or plying on the river, and they carried a multitude of onlookers who were thus able to compare, under the most favorable circumstances, examples of the best and most modern naval structures of the world.

Then came the reception by the nation, represented, of course, by the President, to President MONTT, of Chile. Doctor MONTT had entered Argentine territory from his own country through the recently completed trans-Andine tunnel, in itself a memorial of the year 1910, and had been formally met and greeted by government officials at the frontier, so that his passage across Argentine territory was full of honor, but the real ceremony occurred in Buenos Aires when he arrived in that city on May 23. Enthusiasm was at its highest. The prescribed military salute was accorded him at the station, the President of the Argentine Republic, together with the cabinet officers, welcomed their distinguished guest, and with regiments of Argentine soldiers, with special detachments from the war ships of the two navies, with cadets from both the Chilean and Argentine military schools, with bands from both nations playing patriotic anthems, the procession passed along several of the avenues to arrive at the Government House. Here a formal reception was held and a luncheon given to all the guests, both ladies and gentlemen, for many ladies had accompanied President MONTT and his suite from Chile and many more had assisted President ALCORTA in extending the hospitality of the nation to their guest. President MONTT remained in Buenos Aires to the end of the week and left the city Saturday, May 28, on the return journey to Santiago. He took an active part in the celebrations, and was warmly greeted by the people on the streets and at all public functions as a true and kindly neighbor.

Undoubtedly one of the most interesting and spontaneous manifestations of public sentiment during all the festival was the popular meeting which occurred on the afternoon of May 29 in the Plaza de



THE PALERMO RACE COURSE, BUENOS AIRES.

Horse racing is one of the dearly loved sports of Argentina, and is as much a social function there as it is in Europe. During the celebrations of the Argentine Centennial fine programmes were given every day.

Mayo and before the Government Palace. This was the result of an open letter published by the Government in the early days of May, suggesting that the people of Argentina, irrespective of official life or rank, gather together for a simple demonstration of their loyalty. The result was even more enthusiastic and inspiring than could have been expected. Thousands upon thousands of citizens from all parts of the Republic responded and met for the occasion. Organizations of many kinds took part in the march; there were firemen, gymnastic clubs, trades-union organizations, soldiers, sailors, and students. After marching through the principal streets the multitude halted before the municipal building and were greeted by the President from its balcony, but yielding to the spirit of the moment, he placed himself at the head of the column and led the procession for some distance. He then made a ringing speech, sounding the note for the new century of Argentine independence. The vast multitude was moved to tears, and at a hint from the President burst forth into the national hymn, which rang through the city from several hundred thousand throats.

The *Semana Mayo*, that is, the days before and after national holiday, was crowded with such events as these. Banquets followed receptions; theatrical entertainments were given every night for the many guests; for the people were prepared fêtes and fireworks, dinners, athletic contests, and parades on the water, and there was not a moment in which every taste for pleasure or for more serious things could not be satisfied.

Yet above all, and as a fitting keystone to the celebrations of the *Semana Mayo*, was the ceremony on Wednesday, May 25, of dedicating the Monument to Independence in the Plaza de Mayo, and the grand military and naval parade which was part of the function. This was the supreme hour of nationalism. The center of the plaza, where the corner stone was laid, was the heart of Argentina. Around it throbbed the loyalty and devotion of a prosperous and ambitious country. The day was indeed the beginning of a new century. The vast multitudes realized the solemnity of the occasion and played their part worthily in the celebration. The President, too, delivered an address that appealed to all when he spoke of American liberty. It is impossible to picture in cold words the vividness and impressiveness of the scene. As the corner stone was laid, the President holding the trowel, there seemed to go up from the people a prayer that the future might be as bright for them as that moment was.

At the side of President ALCORTA was President MONTT of Chile, the Infanta ISABEL of Spain, and the special ambassadors from the European and American Governments. The people greeted them all with shouts of good will, as if to show their appreciation of the confraternity of nations in this event. Then these distinguished

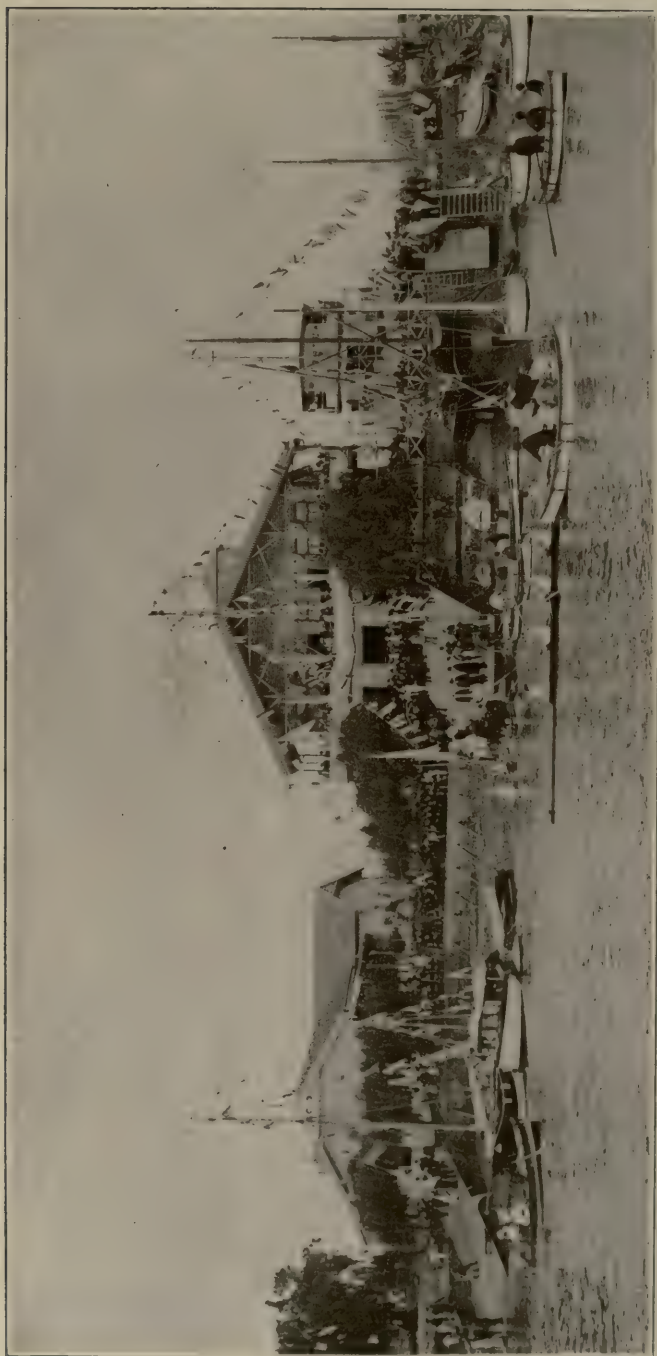
guests attended a service of thanksgiving, the *Te Deum*, in the cathedral, after which came the second great feature of the day.

The naval and military review was witnessed by more than half a million people. By the diverse nationalities in the parade itself it would appear that the whole world had united to offer congratulations to Argentina. Europe, North and South Americas were there, and Asia was well represented by a fine man-of-war from Japan. The two Presidents and the Infanta were in the center of the grand balcony of the *Casa Rosada*; beside them were Gen. and Mrs. LEONARD WOOD from the United States, General VON DER GOLTZ from Germany, other special ambassadors representing foreign governments, and a host of high officials. The procession was led by the sailors from the United States cruiser *Chester*, who were most clamorously cheered for their fine bearing and accurate marching. For two exciting hours the line held on; Chilean cadets and sailors, German men-of-war's men, and those of the battle ships from Italy, Spain, France, Austria, Holland, Uruguay, Portugal, and Japan passed in solid array across the Plaza de Mayo. The spectators could show no preference, for all marched with an equal precision and perfection of training of which any nation should be proud. As the Yankees were greeted for their splendid bearing, so were the Japanese; if the Germans aroused a storm of applause for the absolute rhythm of their step, the Chileans were received with equal ardor for exactly the same reason. And when the men of the Argentine navy brought up the rear, with a grace and dignity no whit less admirable than that of those who had earlier passed in review, the whole city actually shook with a unanimous *Viva la Patria*.

These functions were crowded into the *Semana Mayo*, and there were many others in addition. In all parts of the country, also, city and provincial governments provided patriotic celebrations for the 25th of May. In several of the capitals of Europe, too, official recognition to the day was accorded. It was the tribute of sentiment to a great political movement in history.

The material expression of Argentina's centenary must not be overlooked, however. This illustration of the progress of the nation during the hundred years of independence took the form of a group of expositions, five in number, dedicated to Hygiene, Agriculture, Industry, Transportation, and Art. Not all of them were called international, although they were really much more than merely local in character and scope.

The Exposition of Hygiene, the science upon which the well-being of a people manifestly depends, was primarily devised to furnish to the residents of Argentina an object lesson of how much modern medical and engineering skill contributes to their health and happiness. Naturally, therefore, the exhibitors came from foreign laboratories and workrooms as well as from those in Buenos Aires.



BOAT CLUBS ON THE TIGRE RIVER, NEAR BUENOS AIRES.

During the festivities of the Argentine Centennial celebration in May, 1910, many popular entertainments were prepared for the people. As boat racing is a favorite sport, good contests took place over the course on the Tigre, an affluent of the Rio de la Plata, near Buenos Aires.

The Art Exhibit was largely Latin, and however local the exhibitors might be their nationality was veiled behind the cosmopolitanism of their teaching and of their products. It goes without saying that the exhibit was full of interest and value, both to the student of Argentine life and to him who feels that a civilization is incomplete without the inspiration of the intellectual force of art.

The Industrial Exhibit is probably the most typically Argentine, because its chief purpose is to place before the eyes of native and foreigner alike the wonderful progress made during the century, within the country itself, in turning the raw material of a fertile land into a manufactured product ready for the consumer, and to demonstrate that there is talent to be encouraged at machine and bench within the confines of Argentina.



THE EXPOSITION OF HYGIENE AT BUENOS AIRES.

This exhibit is of particular interest to medical men and students of sanitary science. It is intended to illustrate to visitors the progress made in hygiene within the Republic and at the same time give to the people resident there an opportunity to note the developments that have taken place abroad.

Agriculture, "the favorite science of the people" as it has well been called, is of course international. The exposition is the only one which from the first was intentionally open to the world, and in its group of buildings are collected exhibits from all parts of the globe. A special commissioner, Mr. ERNEST H. WANDS, was sent by the United States in charge of its government exhibit, and a palace with 60,000 square feet of floor space was necessary for the American exhibit alone. It is a matter of pride that this building was the first to be in readiness for the opening day, and that therefore noteworthy honor was paid to our commissioner, who had on this account precedence over the officials of Germany, Great Britain, Italy, Chile, Argentina, France, and Paraguay. Agriculture in all its phases can be studied in this exhibition, and undoubtedly a reciprocal benefit will result to foreigners who investigate Argentine methods of cultivating the soil, and to Argentine people who can study successful principles carried out elsewhere. The Live Stock Exhibit, con-



THE LIVE STOCK SHOW IN BUENOS AIRES.

Every year there is given in the capital of the Argentine Republic a national fair, in which blooded stock of many kinds and from many parts of the country are entered for competitive prizes. This season the Live Stock Show was of unusual interest, and was held in connection with the Agricultural Exhibit, one of the five international expositions arranged to commemorate the Centennial of Independence.

nected with the Agriculture Exposition, is one of its most interesting departments. The famous Rural Society has taken it in charge, a fact that assured good results in every way.

The Railway and Transport Exhibition is the remaining one to be mentioned in the list of exhibits prepared by the Argentine Govern-



From Sud- und Mittel-America.

A POST WAGON ON THE PAMPAS BEFORE THE ARRIVAL OF THE RAILWAY.

One hundred years ago the voyage to the mouth of La Plata was made in sailing vessels, taking often as much as seventy days from the ports of Europe. Mails were few and far between. Settlers outside of Buenos Aires, across the pampas, had to depend upon the stage coach for transportation, and this quaint vehicle supplied their only means of communication with the outside world.

ment to illustrate the progress of the century. There could be no more fitting place than Buenos Aires in which to show the almost miraculous advances achieved from the primitive stagecoach to the highly developed express train or electric tram. Everything of that nature is exhibited, and all accessories to expeditious transportation are given a place.



A MODERN RAILWAY CAR IN ARGENTINA.

To-day the Argentine Republic is well supplied with railways. The Bolivian frontier, at the extreme north, is now in direct touch with Buenos Aires, and construction is progressing rapidly into the region once called Patagonia. The equipment is in every respect first class, while the elegance and comfort in the express trains across the continent are all that could be desired.

This résumé can present but a slight idea of the Argentine celebration. The world will be gainer because of it, and that nation will thereby have been brought closer in touch with its neighbors, near and far. Buenos Aires will be particularly benefited, as many of the exposition buildings will remain to decorate an already beautiful city.

TRAVELING NOTES IN CENTRAL AMERICA

To the Editor:

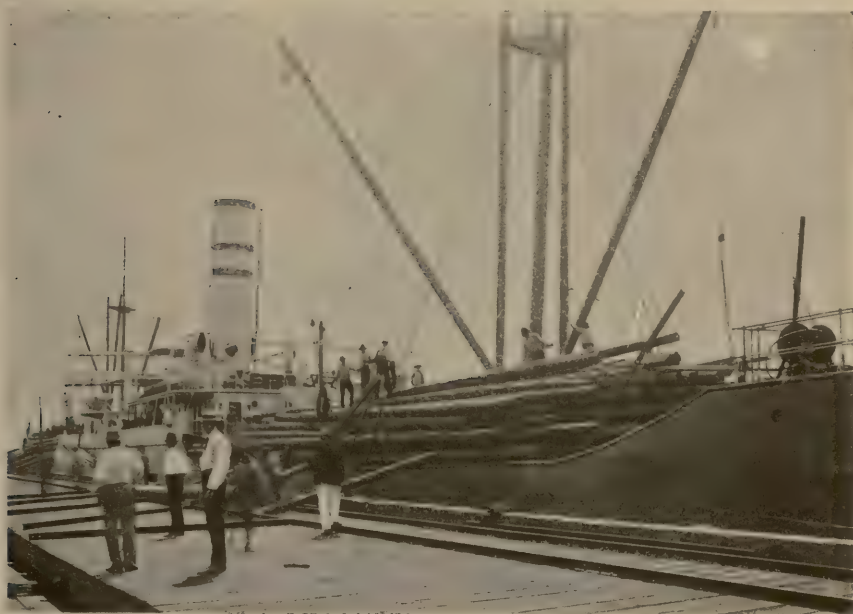
DEAR SIR: Your valuable publication, the MONTHLY BULLETIN, I have read since the very first number, and I wish to take this opportunity to compliment you and the staff in the Bureau for the worthy manner in which it is issued. You are to be especially complimented on the marked improvement that has been so characteristic of the volumes of the last two years. Remarks of genuine admiration for the BULLETIN are constantly expressed by both travelers and natives throughout Central America.

From careful and sincere but friendly critics I have heard, however, an occasional comment to the effect that, while the picturesque and attractive side of Latin America was at last receiving the attention it deserved, the practical side was seldom given the emphasis it merited. The stranger is indeed glad to know that the city of Guatemala can now be reached by an all-rail route from the Atlantic seaboard, but the traveler, and especially the commercial traveler, wants or even demands more than that. He desires details, the simple minutiae of daily experiences, which will be a valuable guide in his own future plans for invading a new territory. Hitherto this traveler has in vain turned the pages of the BULLETIN.

Now, I am not a literary man. Nevertheless I have had abundant practical experiences north of the Isthmus of Panama, and I am going to try to arrange them in readable form. I shall just tell what I know to be facts, capable as such of aiding those who come after, and of saving them from pitfalls into which simple ignorance might lead them. Perhaps you will never print my remarks, but I shall not grieve much, for the chief cure of a *cacæthes scribendi* is to put the words and ideas on paper; after that it is a matter of secondary importance whether they ever reach the eyes of the reading public.

"I think I'll do Central America," a mighty bright and pushing commercial traveling man said to me a few months ago. "I can give three months to it, and my house would like to see me clean up a new territory, anyhow." As my advice was not asked in the matter, it was not given, but this remark set me thinking. How many travelers, commercial or otherwise, know how to do Central America so as to get a clear insight into the various and distinct conditions in all five Republics? Very few, according to my experience. The German, the Frenchman, the Englishman, and even the Spaniard, can cover the territory from the Rio Grande to the Isthmus, but the Yankee salesman is seldom seen. The tourist, even, has only recently begun to show an intelligent appreciation of the beauties of Costa Rica, or of the delicious climate of Guatemala. Since the opening of the railways from the Atlantic side, these two countries have more and more attracted the pleasure seeker and the student, but Nicaragua, Salvador, and Honduras are entities as indistinct in the thought or imagination of the ordinary traveler, as are Turkey, Morocco, and Afganistan. I confess an ignorance about these three old-world countries, but I do know a great deal about all five Republics of Central America. Years of downright experience in covering them with a practical purpose has taught me lessons of real value about them, and if the BULLETIN is kind to me it will help spread this experience all over the Americas.

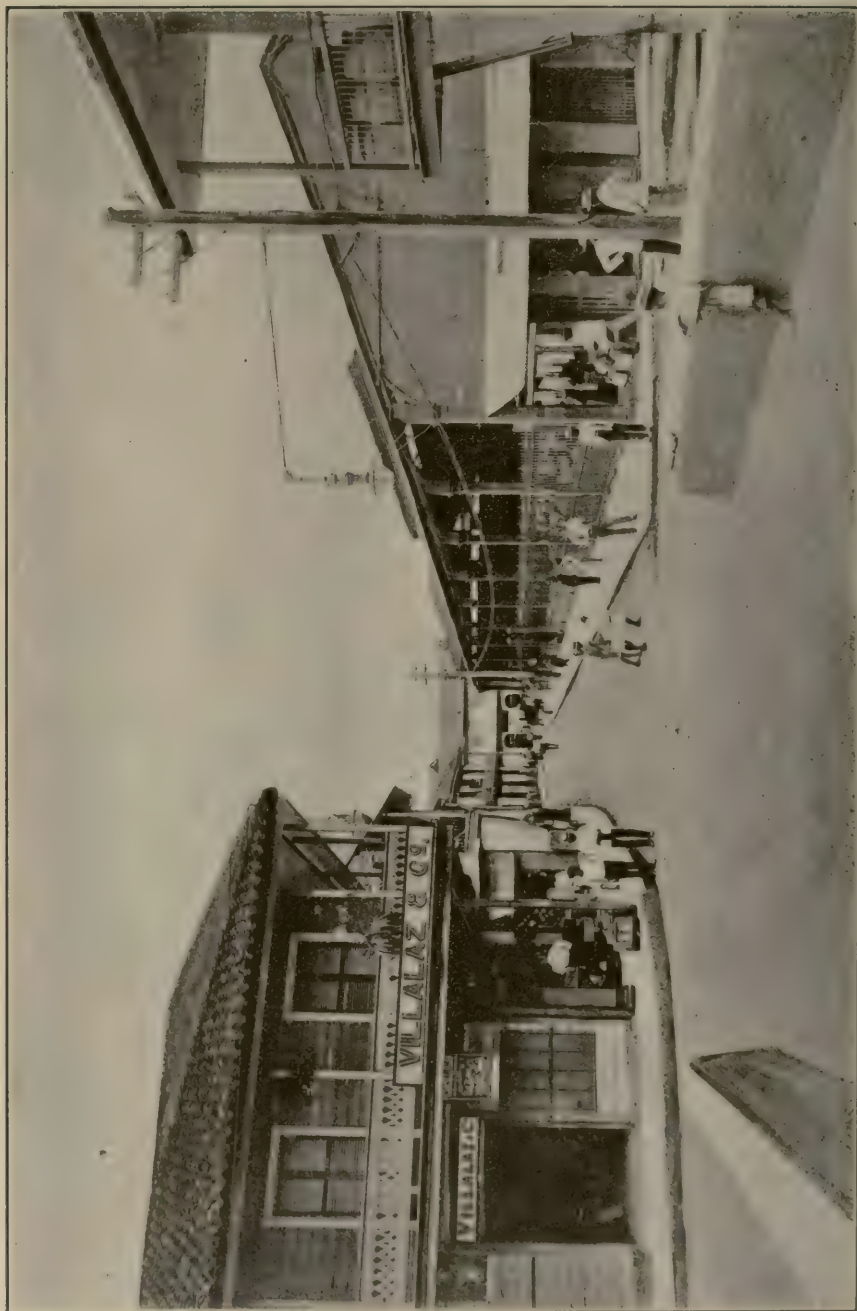
Ten years ago I crossed the Gulf of Mexico and the Caribbean Sea for the first time. I traveled in a nasty little Norwegian banana tramp, which had two pens called state-rooms, with three beds apiece, but as soon as the steamer entered the Tropics the only decent place to sleep was the deck. Panama was then abandoned by the French, ignored by the Colombians, and abused generally by the whole world. Business was at a standstill. The wharves were rotting, although boats tied up to them because there was some traffic across the Isthmus for the west coasts of Central and South America. Colon and Panama were fever beds; the only habitable hotels were the Central in Panama and the Washington in Colon, the two cities being otherwise dirty, picturesque, and foreign. Even five years ago, when the activities of the present régime had been well begun, transportation facilities were somewhat subject to criticism. Business was better, but there was a good deal of gamble about it. Prosperity on the Isthmus might last, but quick sales for cash was the rule, and no great study was given to the future.



UNLOADING PILES AT COLON, PANAMA, FOR USE IN BUILDING WHARVES AND DOCKS FOR THE PANAMA RAILROAD.

To-day a miracle has been accomplished before our eyes. Everybody knows what hygienic changes have taken place, but not everybody is aware of the real national spirit and ambition in the Republic of Panama itself. The country is actually growing, and its consuming power outside the zone is noticeably progressive. I wish I had time to discuss this point; if the *BULLETIN* ever asks me, I can tell a thing or two about business in Panama, although it is now almost altogether in the hands of the foreigner. Americans don't count for much, and it is their own fault, too. What I want to do, however, is to give a picture of traveling conditions, so as to pave the way for better trade.

I have just been to Panama. I left New Orleans in as comfortable a steamer as ever stirred salt water. The appointments were as first class as any traveler could wish. These boats run on a regular schedule of five days between New Orleans and Colon. There are others, equally comfortable and regular, of several lines, between



MARKET SQUARE, PANAMA.

The public market of Panama City is a private enterprise, and the building is one of the best to be found in all Central America, being built of steel and covering a floor space of nearly 32,000 square feet. It stands on the loneliest portion of the bay shore and is supplied with wharves which permit small boats to unload their cargoes from the neighboring coast towns direct to this central distributing point.

New York and Colon, so that the trip, as far as concerns convenience in traveling, is even pleasanter than crossing the Atlantic. When I landed at Colon, too, I found great changes from ten years ago. To be sure there is no decent hotel in Colon, but the streets are paved, the danger of fever is at an end, and a civilized railway station with all modern improvements makes the traveler feel as if he were in the States.

But he isn't. Even in Panama he is in Latin (Spanish) America, and he makes a huge mistake if he doesn't recognize it. I am not speaking of the tourist, who is seeking for the strange and unusual, but of the man of business who goes for a purpose, and can return home only when that purpose is accomplished. I am speaking to that man who said he would "do" Central America in three months.

I took the train leaving Colon at 5 o'clock in the morning, partly because it would bring me to Panama in time for a good breakfast at the Tivoli Hotel, partly also because most trains in Central America leave one side or the other at sunrise, and it is well to begin to get used to it as soon as possible. The man who can not get up at 4, drink his coffee and catch his train at 5, had better stay away from the Tropics. Sometimes he will not be so lucky as to have a train to catch, for many a trip over the mountains must be made on mule or horseback; in that case the traveler has no choice; he must start before sunrise, or he arrives nowhere and accomplishes nothing. The Panama Railroad charges 5 cents gold a mile, with no reductions. As the distance from Colon to Panama is 48 miles, the cost can be easily reckoned.

The Tivoli Hotel in Panama is first class in every particular. It is managed by the Isthmian Canal Commission on the straight American plan. Three square meals a day, beginning with a substantial breakfast, including buckwheat cakes—if the traveler can not get out of that habit—are furnished, and there are rooms with private baths, if this luxury is requested. The Tivoli is a revelation to those who knew Panama years ago, when it was altogether a Spanish-American town. Then the Central, even yet frequented by those who have to sojourn in the city, either for business or because of the interval between steamers, was the rendezvous for the traveling world. Every language was heard there, every nationality was seen. The Central is still a popular resort, but Yankees frequent it less and less, nowadays.

This word "Yankees" I use advisedly. We from the "States" are all Yankees (*Yanquis* or *Yankes*) in Spanish America. It is no term of reproach, but an appellation thrust upon us to distinguish the inhabitants of the United States from those of other Republics of America. I, as a Yankee, went to the Tivoli. It lies within the canal suburb of Ancon, but the legal rate of 10 cents gold—20 cents silver—for a single trip in a public conveyance carries the traveler to its door from any part of the city.

It does seem to me as if I never would get started on my story, but I must stop here to interpret for the stranger the significance of the money in Panama. The Republic has a silver coinage of fractions of a (gold) balboa or dollar. Its value is guaranteed by the Governments of both Panama and the United States, so that the half-balboa, the highest value coined, represents exactly the value of 50 cents in American money. The natives, however, could not resist the temptation to call this 50-cent piece a *peso*. A *peso* in all countries having such a denomination is commonly, but incorrectly, called, in English, a dollar. A *peso*, moreover, is supposed to have 100 cents, be they called *centavos*, *céntimos*, or *centésimos*. Therefore this misnamed Panamanian *peso* is without reason divided into 100 imaginary cents, 2 of which must go to make up the value of the 1 cent gold. Thus a condition has arisen in the Republic, as well as in the zone, which has its foundation in tradition only, but which is so deeply rooted that even the I. C. C. (Isthmian Canal Commission) recognizes it by dividing its employees now, since the gold standard was introduced, just as before that date, into gold and silver employees. The result is that all legal prices are quoted in terms of the American (gold) dollar; railway tickets, Tivoli Hotel rates, and postage stamps are included. All commercial prices are quoted in terms of the fictitious and traditional local dollar, or *peso*. The legal rate for a carriage is 10 cents;

the price stated by the *cochero* (driver) is always 20 cents, and he may sometimes add the word *plata* (silver), for the understanding of the stranger. A shirt costs, say, 3 pesos, and frequently the shopkeeper will say three dollars; this means \$1.50 gold. It is a very artificial adjustment of prices, but as long as the native and day laborer are stimulated by the belief that they are thereby paid in greater abundance for their activity, the confusion in money values will prevail. The traveler should bear this lesson in mind, or he will often miscalculate his expenses disastrously.

Well, then, I am at the Tivoli Hotel, and have started out to make my professional calls as a sales agent for the manufacturing houses I represent. How to accomplish results, how to avoid the failures of bad packing and insecure credits, which so frequently interfere with American success in commercial competition, are subjects I shall discuss at the conclusion of these articles, if the BULLETIN allows me to continue. Just now I am explaining how to travel; nothing more. At the Tivoli I take my last glimpse of the kind of hotel I am used to back home. I have met many good friends among the merchants, have sold my usual order, and, with certain well-founded mental reservations, I plan to begin my trip to the Republics of Central America. It has taken me a week to cover Panama, and this, let me add, is a short period for a city of that size. I had hoped to catch a steamer from Colon, only 48



FACSIMILE OF SILVER HALF BALBOA OR PESO OF PANAMA.

The standard of value in Panamanian money is the gold *balboa*, equal in value to \$1 United States currency. However, no *balboas* have ever been coined, and the silver coin shown above is the largest denomination in circulation.

miles across the Isthmus, on the following day, the 26th of the month. Two weeks of my allotted three months have already passed, and I have scarcely begun. If I can make Limon, Costa Rica, by that steamer, I shall gain several days and perhaps keep even with my schedule.

Just as I was preparing to move across to Colon, one of those tremendous tropical rains came on. I could not stop it; I could only watch it fall. The rivers rose as if by magic, and before I could get started one bridge was washed away and a landslide occurred on the track. Traffic was interrupted for a considerable time, and even passengers were delayed for several days. The result was that I lost my steamer, and had to wait in Colon from Tuesday till Friday before I could take another.

It is only 190 miles from Colon to Limon, and all steamers leave in the afternoon of one day to arrive early in the morning of the following day. I was fortunate enough to be admitted at "The Lodge," in Limon, the comfortable hotel managed by the United Fruit Company for its employees and certain members of the traveling public. Limon of to-day is unrecognizable by those who knew the sloppy town of ten years ago. Its streets are well paved and clean; its park is a vision of loveliness, and there is a bustling activity about the place that removes it entirely from the category of tropical seaports, where travelers land and escape as soon as possible into the interior. I had business in Limon which took the better part of three days, but

meanwhile the rains had done damage along the line; *derrumbes* (landslides) had occurred, so that it was five days before I, with my baggage, could reach San Jose, the capital of Costa Rica, 105 miles inland and nearly 4,000 feet above sea level. Three weeks gone, with the harder travel still to come.

Please do not think I am drawing an unfavorable or exaggerated picture of my misadventures. I have not always been delayed by rains in Panama or Costa Rica. Many times it is possible to go through without a break, but these accidents are very apt to happen, especially on the eastern slope of the mountains of those Republics bordering the Gulf of Mexico and the Caribbean Sea. If the traveler is not prepared for them, if he thinks he must leave on a definite date and arrive exactly as per schedule, and frets his patience away over little mishaps like this, he will not make a success in Central America, and somebody else should be sent in his place.

San Jose is a little paradise. It lies near the surrounding hills, and so close to the border line between the east and the west slopes that it has the benefit of the heavy rains of the one, with much of the climatic advantages of the other. It is a busy place, too, well worth the careful attention of the manufacturer, the distributing agent, and the investor from the United States. The hotels are poor, rather high priced, and almost always so crowded that it is hard to get a room. The climate is bracing, even cold in the early months of the year, and during our summer it rains very frequently. The traveler must prepare himself therefore not for a hot, steamy tropical place like Colon or Limon, but for weather that resembles April, say, in Washington.

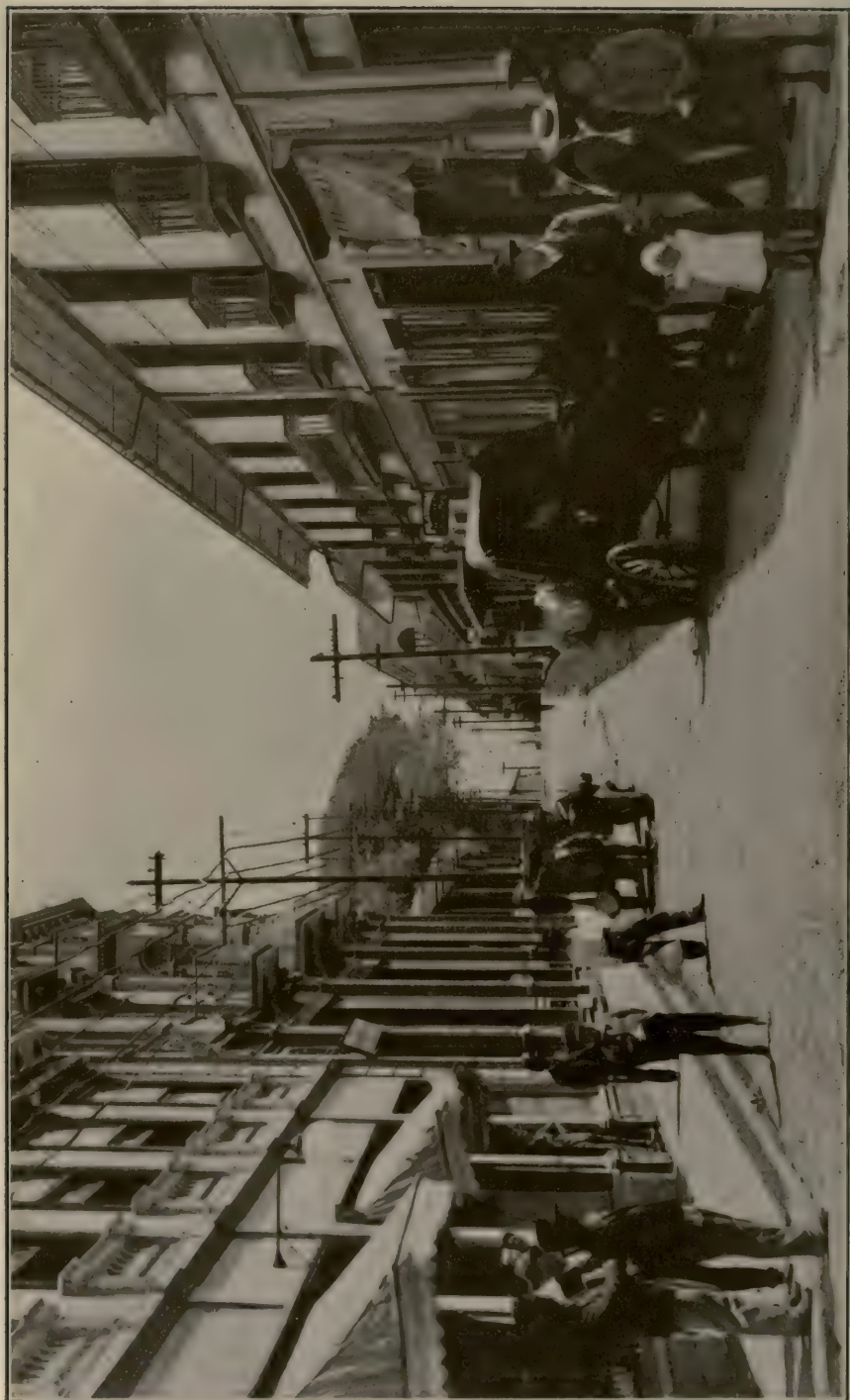


FACSIMILE OF GOLD TWENTY COLONES PIECE.

This is the largest gold coin in circulation in Costa Rica, and is valued at about \$10 United States currency.

The first step everyone takes on entering a country is to spend money. In Costa Rica, for instance, the traveler must pay a wharf tax of about \$1 gold before he is permitted to touch land or to bring his baggage with him, apart from whatever customs duties may be levied on his goods. Costa Rica is on a gold basis, the gold money of the United States being a legal tender for certain payments. The standard coin is a silver *colon*, with fractional currency and paper notes of higher value. This *colon* has an exchange value of 46½ cents gold. The slight fluctuations to which it is subject need not be considered, and for all practical purposes an American gold dollar is equivalent to ₡2.15, the *¢* standing for *colon*.

Up to the city of San Jose, even through Colon, Panama, and Limon, I have been on familiar ground. English is spoken generally, the daily life is not very far out of the ordinary, and even the man unacquainted with Spanish has no difficulty in getting along and in selling his goods, if he finds a market. Beyond San Jose, however, conditions are different. A foreign language is less a part of the education of the business man; the successful commercial traveler must possess some familiarity with Spanish or he suffers in contrast with his friendly competitors, the Germans and English, and if he can not explain in Spanish the technical features of his wares, he will make small impressions on his hoped-for customers, and, moreover, he neglects thereby an opportunity to pay a delicate compliment to them, for they appreciate sincerely any effort made by the foreigner to converse with them in their own tongue.



CALLE CORREO, SAN JOSE, COSTA RICA.

I myself speak a rather indifferent Spanish. At the theater, for instance, I seldom understand the play or its wit; in society I frequently make ridiculous blunders, yet I always persist in talking business in Spanish; I learn the polite phrases that are so pretty and so full of meaning in pure Castilian, and I will bet a good sum that this little effort of mine is accountable for half my success, for it puts me on a friendly footing with both sexes in all classes of society, and shows that I have some human regard for my commercial associates.

There are three other factors in traveling in Central America which must be constantly borne in mind. I have learned the lesson myself, and I wish that others would accept my experience as of seasoned value. The first is the character of the *hotels*. I know them from Panama to Quezaltenango. I can get a good meal in every hotel in Central America. The man who says he can't, either pretends to live in a Fifth



A VIEW IN CENTRAL PARK, SAN JOSE, COSTA RICA.

A beautiful park covering an area of nearly 2 acres. The artistic iron railing surrounding the park was made in England at a cost of \$30,000.

avenue style, or does not know how to conform to the customs of the country. There is no such thing as a European plan, for all hotel accommodations include the room and the meals, usually at a moderate price. These meals are the morning coffee, with bread and butter and, if desired, hot milk in place of hot water; often fruit may be had for the asking, but eggs, though they are obtainable, cost extra. What is called *almuerzo* comes at noon and differs from the *comida* in the evening only by the addition of a salad, some *dulce* (sweets) and perhaps cheese; both meals are bountiful—in fact, the tendency in Central America is to eat too much—well cooked and well served. If the ordinary hotel in cities in the United States of 20,000 or less, cooked and served meals even half as appetizing as those in hotels in little Central American towns of 2,500, there would be less dyspepsia among the commercial travelers of the land. I state this with a positive conviction based on long trial, and defy the fair-minded man to controvert it. Of the rooms I can not speak with enthusiasm. The beds are not

always clean, and it frequently happens that each room contains more beds than one, so that it must be shared with others; frequently these rooms have no windows, the only source of natural light being the doorway that opens from an inner court or directly onto the street. The toilet facilities are usually primitive, one tiny washbowl and a scant towel sufficing; the *escusados* are almost always dirty, and the sooner this is accepted with only a mental protest, the better; and that tropical pest, the flea, is universal.

The second factor is the cultivation of patience. Let me drop the old joke of *mañana*; there is as much sanity in life in putting off many things till to-morrow, as there is in doing to-day in a hurry what can better be done the day after. But no one frets in Central America. Usually there is only one train a day between points, but the man is foolish who loses his temper because he misses that one train and must therefore wait twenty-four hours for the next. I never think of catching a train until I am absolutely certain that nothing whatever can possibly detain me. Many a time, when I had hoped to be able to get away, I have lost a day for five minutes additional conversation, but I never lose my temper on that account. Many a time I have waited in a hot little seaport with nothing to do while the expected steamer violated her schedule to take on freight at the port below. Many a time I have told a merchant who put me off till the next morning that I was pleased to meet his convenience in the matter, although I might be losing a whole week between steamer dates. But this sort of patience pays. American hustle in selling goods quickly should not be the keynote in Central America; and I dislike to admit that American merchants often fail sadly in keeping their promises of promptness to deliver goods on time after the sale is made. Always keep your temper and your promises, is excellent advice.

The third factor is a kindly attitude toward the people themselves of all degrees. Do not listen to the ill-humored gossip that the Central Americans hate us. It is not true. They may hate the individual who misconducts himself; they may hate the corporation who gets the best of them; but it is nonsense to assume at the outset that any individual must run counter to a racial antipathy. The man who has good goods to sell and offers them at a fair price will do business, but the man who carries a chip on his shoulder works under a fatal handicap. Do not be misled on this point. Go into Central America with an open mind and a human spirit of friendship. That's all there is to it. Make your own impressions, do not take them from others, and be fair to yourself and to them. I would rather travel alone and unarmed (as I have done) for three days in any part of Central America, than for three hours after dark east of Broadway.

(In my next letter I am going to take you through the real Central America of practical daily life.)



PROJECT OF A HISTORY OF SPANISH-AMERICAN LIT- ERATURE.^a :: :: ::

II. THE PERIOD OF INDEPENDENCE.

IT is a credit to Spanish-American writers that their activity has been so great in spite of the difficulties with which they have had to contend. Not the least of these is the lack of books. If the more important cities, like Mexico, Santiago de Chile, and Buenos Aires are to-day well equipped in this regard, they are far less accessible, to writers living away from those centers, than New York, Boston, or Chicago, is to most of our own men of the same class, owing to the greater difficulty of transportation in Spanish America. This complaint of the lack of libraries which existed in VERGARA'S day, some forty years ago, holds good to some extent for many of the Republics to-day.

There is no greater incentive to a writer than the knowledge that he will be read by many. In this country, with our generally diffused education, our multiplicity of publishers, and our ubiquitous public library, the reading public may be counted by millions. In



CHARLES WARREN CURRIER, PH. D.

Spanish America it is different. There, with a considerable proportion of the population belonging to the Indian race, and with education only imperfectly spread among the masses, the number of readers is neces-

^a By Charles Warren Currier, Ph. D. (Ed.—Part I of this article, covering the Colonial Period, appeared in the May issue of the Bulletin.)

sarily small. VERGARA Y VERGARA remarks that the circle of readers in each Spanish-American nation is in smaller number than the readers in a single street of London, a square in Paris, or a district in Spain and Italy. This, of course, would not hold good for larger centers of population, like Buenos Aires.

Not the least difficulty in the way of Spanish-American writers lay in the frequent wars and revolutions that have kept the different Republics in a state of perpetual turmoil, and another obstacle is to be found in the comparative isolation of the American Republics from each other, by which universal cooperation is impeded and a color of provincialism is given to the various literatures.

In spite of these obstacles, however, the literary activity of most of the Republics has been immense, a fact that will by no means diminish the difficulty of my task. Although the literature is rich, the editions of the works are necessarily small, and, therefore, it is not so easy to obtain copies in this country; though I rely, to a great extent, on the enterprising spirit of our Library of Congress.

In the colonial period I had to deal with a more united people; with one nation, as it were; now I shall have to treat the literary history of eighteen independent Republics. There are, however, it must be observed, certain literary centers that rise above the rest. On the Pacific coast, Mexico in the north, Chile in the south, and Colombia in the center, have been most prolific in writers, while Argentina and Uruguay on the Atlantic, with their cultured cities of Buenos Aires and Montevideo, are stretching forward in the race toward an intellectual goal.

If Spanish America has produced no individual work that has exercised great influence upon the literature of the world, it has, nevertheless, brought forth works that by critics have been pronounced excellent, and which, were they better known, would be highly appreciated. During the revolutionary period, when the colonies were striving for their independence, literature necessarily lagged, for it does not thrive amid the excitement of war and the din of arms. Since 1821, however, great strides have been made, in spite of the many revolutions with which Spanish America has been afflicted.

In the colonial period, history, religion, and poetry were the foremost branches of literature, and ecclesiastics were the most numerous writers; since the beginning of the period of independence, philosophy, jurisprudence, political economy, and fiction have come forward, while the lay element predominates.

The influence of French literature which began in Spain in the eighteenth century, and passed then to America, continued to be felt, more or less, to our own day, although it is safe to say that

some Republics were more affected by it than others. This influence was especially felt in literature of a lighter vein.

For serious studies of a philosophic character, our neighbors to the south may claim high distinction. This is especially true of the more flourishing Republics like Mexico, Chile, and Argentina. Philosophy has been represented by such men as BRICEÑO, MARÍN, CUERVO, and VARELA. RAMON BRICEÑO and VENTURA MARÍN, both of Chile, were distinguished by their works on modern philosophy and ethics, while JOSÉ RAFAEL CUERVO, at one time President of the Republic of Colombia, flourished by his philosophical and philological acquirements. The Cuban ecclesiastic, FELIX VARELA, who died an exile in the United States, and whose life was written by the late JOSÉ IGNACIO RODRIGUEZ, of the International Bureau of American Republics, acquired great fame in his earlier years by his studies in philosophy. VARELA was one of many ecclesiastics who were eminent by their learning in the nineteenth century, in which we find the names of such men as ARACENA, CASANOVA, ERRAZURIZ, EYZAGUIRRE, and LOPEZ, in Chile, and of VICENTE TOLANO in Ecuador.

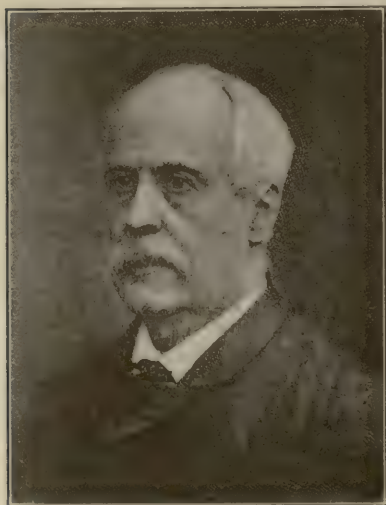
Political economy and jurisprudence reached their highest development in the nineteenth century. Independence and self-government gave them a fresh impetus in most of the Republics of Spanish America. Towering above all by his prodigious intellectuality, stands ANDRES BELLO, a Venezuelan by birth and a Chilean by adoption. I regard him as one of the most extraordinary men that the Western Hemisphere has produced. Entirely a self-made man, he explored almost every field of human knowledge, and his numerous works testify to his labors. Poet, philosopher, linguist, philologist, *littérateur*, historian, educator and jurist, such was BELLO. His civil code of Chile places him among the world's legislators. It is, perhaps, to be regretted that in his earlier years his attention was so much divided among various subjects that many of his labors remained unfinished. Few countries can boast of a man so versatile and of such intellectual activity as BELLO.

To mention only a few writers in the field of political economy, we find in Chile, ARTEAGA ALEMPARTE, CARRASCO, ALBANO, and JOSÉ BERNARDO LIRA. Bolivia may well be proud of JOSÉ MANUEL LOZA, and Peru of such of her sons as ALBERTINI, FUENTES, and PANDO. Venezuela gives us ACOSTA, and Mexico, OTERO, while in Argentina we find the names of a JUAN BAUTISTA ALBERDI, and a JOSÉ MANUEL ESTRADA. Cuba, while still a Spanish colony, was not wanting in eminent men who wrote on political science, such as FRANCISCO ARANGO, and ANTONIO BACHILLER Y MORALES.

Politics and journalism are intimately connected, especially in those countries where the editorial is of greater consequence than the

news column. When the yoke of Spain had been cast off, journalism began to flourish in Spanish America with a host of eminent writers. With our neighbors to the south, journalism is not so anonymous as it is with us, and the personality of an editor counts for more. MANUEL ANCIZAR, of Colombia, and NICOLÁS AVELLANEDA, of the Argentine Republic, made their marks as journalists, among many more, not to speak of JUAN NICOLÁS ALVAREZ, founder of that short-lived satirical paper, the "*Diablo Político*," which had great vogue in its day.

I may not overlook ZOROBABEL RODRIGUEZ, of Chile, who exercised such immense influence on the thought of his times, and whose "editorial" was, for many years, the ordinary topic of conversation



GARCIA ICAZBALCETA.

at the breakfast table. RODRIGUEZ was not only a journalist; he was also poet, novelist, philologist, literary critic, sociologist, and a man of public political life generally. As journalist, he surpassed most if not all of his contemporaries in the difficult task of newspaper polemics.

Among bibliographers and literary critics, it is impossible to overlook such men as the Argentine writer, JUAN MARIA GUTIERREZ, JOSÉ MARIA ROJAS, of Venezuela, and JOSÉ MARIA TORRES CAICEDO, of Bogota.^a A well merited reputation as literary critic was enjoyed by the late GARCIA MEROU, until a short time before

his death Minister of the Argentine Republic in Washington.

The space allotted to this paper will not permit me to dwell upon the distinguished men who have written on grammar, philology, pedagogy, and other sciences. Suffice it to say that nearly every branch of human knowledge has had its representatives in Spanish America. A word, however, may be said of the natural sciences. The entire life of JOSÉ VICENTE BUSTILLOS, of Chile, for instance, was devoted to this study. He has left several works on chemistry and kindred sciences. EDUARDO CARRASCO, a rear-admiral in the Peruvian service, composed a history of the Peruvian navy, besides his mathematical and astronomical studies.

In Mexico, the sciences of mathematics and astronomy were pursued by such men as FRANCISCO DIAZ COVARRUBIAS and ANTONIO

^a JOSÉ TORIBIO MEDINA and GARCIA ICAZBALCETA were mentioned in the preceding article.

GARCIA CUBAS; while the Uruguayan priest, DAMASO ANTONIO LARRAÑAGA, was an authority on the flora and fauna of the Plate, and chemistry was represented in Cuba by ALVARO REYNOSO. In the front rank of South American scientists stands the Peruvian, EDUARDO DE RIVIERO, to whom I expect to do full justice in my work.

I must now pass on to history, which has had most excellent writers wherever the Spanish language is spoken in America. All the Republics have had their historical writers, of whom only a few may be alluded to here. Some of these have given us extensive works, produced by the most conscientious labors. To these may be reckoned SUAREZ, the historian of Ecuador, who ransacked the archives of the Indies at Seville in search of material.



LUCAS ALAMAN.

One of the most prolific writers on historical subjects in Mexico during the course of the nineteenth century was CARLOS MARIA DE BUSTAMANTE, especially noteworthy as the historian of his own times. His contemporary, LUCAS ALAMAN, was one of the most prominent of Mexican historians of the last century. In spite of his busy political life he found time to compose his dissertations on the history of the Mexican Republic and his history of modern Mexico. To Mexico belong also OROZCO Y BERRA and NICETO DE ZAMACOIS. JERONIMO PEREZ, one of the prominent writers of Central America, is the historian of Nicaragua. In Central America we find also LORENZO MONTUFAR and LEON FERNANDEZ, of Costa Rica, besides DOMINGO JUARROS. JACOBO DE LA PERUELA, of Cuba, and ANTONIO DELMONTE

Y TEJADA, the historian of Santo Domingo, may also be mentioned. In Colombia, the names occur to us of JOSÉ ANTONIO DE PLAZA, JOSÉ MANUEL RESTREPO, and JOAQUIN ACOSTA. Venezuela has given us RAFAEL MARIA BARALT and ARISTIDES ROJAS, and Ecuador, VELASCO and SUAREZ. Peru furnishes RAIMONDI and MARIANO PAZ SOLDAN, and from Bolivia came MANUEL JOSÉ CORTÉS and RAMÓN MUÑOZ CABRERA. Chile, which has distinguished itself among the Republics of Latin America for the abundance and merit of its literary labors, has been especially prolific in historical writers. I may barely allude to a few, such as the brothers MIGUEL LUIS and GREGORIO VÍCTOR AMUNATEGUI, RAMÓN SOTOMAYOR VALDÉS, MANUEL BILBAO, and the Franciscan, JOSÉ JAVIER DE GUZMAN Y LECAROS; nor should I forget, among others, VICUÑA MACKENNA and DIEGO BARRIOS ARANA.

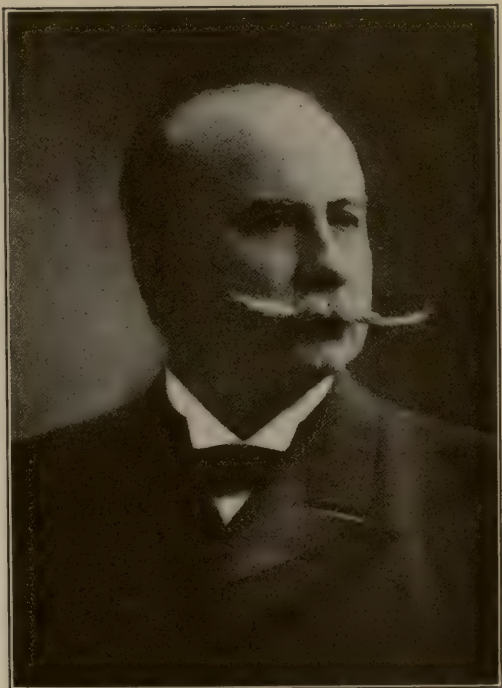
As we cross the Andes we find the priest, GREGORIO FUMNES, writing on the civil history of Paraguay, Buenos Aires, and Tucuman, while VICENTE FIDEL LOPEZ, by his "History of the Argentine Republic," obtains a place among the prominent historians of South America. South American emancipation, and SAN MARTÍN, one of the great leaders in the movement, were written by BARTOLOMÉ MITRE, while in Uruguay figure such writers as ALEJANDRO MARGARIÑOS CERVANTES and ISIDORO DEMARIA.

The widest department of literature from the Rio Grande to Patagonia is poetry, the undulating romance language of Castile lending itself so easily to the muses. In Spanish America public men generally are writers, and most writers are poets. Few, probably, are not tempted to stray occasionally from more serious studies, and climb the slopes of Parnassus. Lyric poetry sends its echoes all over Spanish America. ANDRES BELLO, for instance, was a master of Castilian verse. In Bogotá, the home of the flowers of literature, even diplomatists are tempted to be poets.

As we enter the nineteenth century we are at once met by the prince of South American poets, the American PINDAR, JOSÉ JOAQUIN OLMEDO, of Ecuador, the author of "Canton á Junin," which some critics regard as an epic without an equal in the Spanish language. Ecuador may also boast of JUAN LEON MERA, the Indian poet.

The poets of Spanish America are too numerous to mention here, and it is impossible to do justice to them in this paper. A few only may be alluded to, such as JULIO ARBOLEDA, of Colombia, CLEMENTE ALTHAUS, of Peru, DANIEL CALVO, of Bolivia, and that youthful son of Uruguay, ADOLFO BERRO, not to speak of FIGUEROA, ECHEVERRIA, and LAFINUR, of Argentina, EUSEBIO LILLO and CARLOS WALKER MARTINEZ, of Chile. HEREDIA, MENDIVE, MILANÉS, and PLACIDO, of Cuba, are a few of the names that occur to me now. I expect to treat extensively of nearly all in my work.

The drama is certainly the most striking branch of literature in the Spanish language. No tongue can boast of so many dramas as the Castilian. Seventeenth century America had produced one of the dramatists whose name is famous in Spanish literature, namely, RUIZ DE ALARCON; but the eighteenth century was singularly barren in dramatic effort. With the nineteenth, the drama again makes its appearance, and a number of poets compose plays. The great religious dramatist, CALDERÓN, has had a namesake on this side of the water who obtained distinction in this field. The first production of FERNANDO CALDERÓN was presented in the theater of Guadalajara in 1827. He died in 1845, ranking as one of the first *littérateurs* of Mexico. Other Mexicans figuring on the stage were GONZALEZ BOCANEGRA, and MANUEL EDUARDO DE GORISTIZA, one of the defenders of Churubusco against the Americans. The plays of the latter were also produced in Spain. A contemporary of GORISTIZA in Mexico was IGNACIO RODRIGUEZ GALVAN, whose career was brief but splendid. At the production of his first play, "Muñoz," the people went wild in their applause. GALVAN was a self-made man whose nights in boyhood's days were devoted to the cherished pursuits which the days refused him. A tone of melancholy pervades his poems.



C. WALKER MARTINEZ,

Poet and *littérateur* of Chile.

The Cuban poet, MILANES, was also a dramatist, and in the same island, VELEZ HERRERA was a constant writer. The "Gonzalvo de Cordova" of FRANCISCO GAVITO is a model of beautiful language and facility of versification.

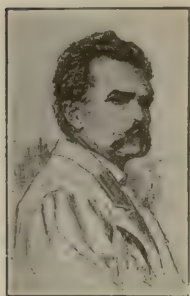
In Venezuela we find the illustrious names of HERIBERTO GARCIA DE QUEVEDO and HERACLIO MARTIN DE LA GUARDIA. Several of the plays of the former were represented in the theaters of Madrid.

Colombia has given us JOSÉ FERNANDEZ MADRID, and in Peru, NICOLÁS CARPANTO was quite successful. MANUEL SEGURA has

been styled the genius of the Peruvian stage. In Argentina flourished DEMARIA, and TOMAS GUTIERREZ, and ROSA GUERRA, while the eminent pedagogist, JUANA MANSO DE NORONHA, wrote the "Revolution of May."

Among the dramatists of Chile, mention is deserved by MANUEL CONCHA and GUILLERMO BLEST GANA. CARLOS WALKER MARTINEZ was also a dramatist. His "Manuel Rodrigues" was presented before he was 22 years of age. It attracted great attention to the author, who had succeeded in touching a patriotic chord in the hearts of his countrymen with the hand of a master.

We now come to prose fiction. The novel in Spanish America is of recent birth, though in the colonial period we here and there find a few isolated attempts. In fact, romantic literature had much to suffer from the competition of French novels which were circulated in a Spanish dress. Among the various works of fiction published in the different Republics I will single out two;



JORGE ISAACS.

the one for its charms, the other for its influence.

The "Maria" of the Colombian writer, JORGE ISAACS, is one of the prettiest and one of the saddest little tales even written in America, and probably few are better known. Idyllic in its poetic simplicity, it is redolent of the tropical odor of the beautiful valley of Cauca. Containing no stirring events, no thrilling adventures, as an every-day love tale, with a tragic ending, it is unsurpassed. When you close the book, with tear-bedimmed eye,

MARIA remains enshrined in fancy as an innocent and beautiful child, rendered still more beautiful in death.

The other novel is the "Amalia" of the Argentine writer, JOSÉ MARMOL. This is one of the few South American novels that have had a vogue in Europe, where it was translated into French and German. It gives us a pen picture of the dictatorship of ROSAS. "The book," says FERDINAND WOLF, "marks an epoch in Spanish American literature, as being one of its first historical novels." Contemporary events and persons are brought into play, as though they had belonged to several generations back, according to a method adopted by some other writers, notably the German novelist, CONRAD VON BOLANDEN.

I may mention here, in passing, a few other well-known names of novelists, such as FLORENCIO BALCARCE, MANSILLA DE GARCIA, and MANUELA GORITI in Argentina; JULIO ARBOLEDA, in Colombia; JUAN LEON MERA, in Ecuador; ALBERTO BLEST GANA, in Chile, and DANIEL CALVO, in Bolivia. It was from a novel, "Placido and Blanca," that the Cuban poet, GABRIEL DE LA CONCEPCION VALDEZ, obtained his pseudonym of "Placido."

Mexico has been especially fertile in novelists. Such names as those of JOSÉ DE CUELLAR (FACUNDO), IGNACIO ALTAMIRANO, MARTINEZ DE CASTRO, JUAN ANTONIO MATEOS, MANUEL BAYNO, and JOSÉ MARIA RAMIREZ, figure prominently in the history of its literature. JOAQUIN FERNANDEZ LIZARDI has been styled the patriarch of the Mexican novel, and his works are among the best known of his day, with their fiery rebukes of what he regarded as abuses. FERNANDO OROZCO Y BERRA and VICENTE RIVA PALACIO come to swell the number of those who have enriched the literature of their country.

In this paper I have drawn merely the faintest outlines, but I trust that I have given an idea of the fertility of the field I have begun to work. As I have undertaken to write a history, I shall limit myself to the past, and, consequently, not dwell upon contemporary literature.



METHOD OF ACQUIRING PUBLIC LAND IN PANAMA^a

WITH the rapidly approaching completion of the Panama Canal and the beginning of the work on the Panama-David Railroad, the attention of American investors is becoming focused on the rich undeveloped lands and mineral resources of the Republic of Panama, adjoining the Canal Zone along both banks of the canal, and inquiries are constantly being made as to the possibility of taking up tracts of the vast areas of virgin forests and rolling cattle ranges comprised within these public lands. The National Assembly of Panama has anticipated this result of the canal work and the influx of Americans and American capital, and has thrown open to acquisition by Americans on equal terms with native Panamanians the lands lying along the Pacific coast to the west of Panama City, a stretch of over 300 miles, which lands since the years 1705 and 1735 have been held as commons of the various municipalities scattered along this coast and inland to the *cordillera* or watershed.

The public lands of Panama are divided into two main divisions, known as *tierras baldias* and *tierras indultadas*. The former are the public lands of the Atlantic coast, stretching from the boundary of Costa Rica in the Province of Bocas del Toro to that of Colombia in the Province of Panama, a distance of more than 500 miles, and inland to the divide; and on the Pacific coast, from the Punta Chame 30 miles southwest of Panama City to the Colombian border in the Province of Panama, a distance of over 400 miles. They are therefore comprised entirely within the five provinces of Bocas del Toro, Chiriqui, Veraguas, Colon, and Panama on the Atlantic, and Panama on the Pacific.

In addition to these there are included in the *tierras baldias* the islands of the Pacific off the coast of the Provinces of Chiriqui, Veraguas, and Panama, principal of which is that of Coiba, off Veraguas, an island 25 miles long by from 5 to 15 miles in width, almost entirely covered by a dense tropical forest in which are to be found many valuable hard woods, including mahogany, lignum-vitæ, cocobolo, roble, cedro, maria, etc. This island, as well as numerous smaller ones nearby, can be acquired as a whole, under the law governing *tierras baldias*.

^a By Charles Melville Brown.

The greater part of the lands of the Atlantic coast are also covered with virgin forests, although broken in places by patches of open savannas. At different points along the coast tracts of land have



PANAMANIAN INDIANS IN NATIVE CANOE.

The natives of Panama are very expert in the making of canoes from the trunks of trees. Most of the small vessels which are used to carry fruits and vegetables from along the coast to the market in the city of Panama are of this class, and even boats large enough to carry animals are made in the same manner.

been taken up and cultivated. The price of these *tierras baldias* is 50 cents per hectare for the first 100 hectares, and 5 cents increase per hectare for each additional 100 hectares.



PUBLIC LANDS IN PANAMA

1. Burned over beach land, cleared only with machetes, ready for planting in coconuts, on public lands of Panama. This land is rich in pulverized shell, sand, and dark brown loam, and is ideal for coconut raising.
2. Horse corral on a small section of public land in Panama. The new land law provides for the taking up of 30 acres of grass land for each individual holder for such purposes. This is on the edge of the woodlands, where it adjoins the open range.
3. River bottom grass lands on public lands of Panama. The rich, wide blade grass of these bottom lands will support one head of cattle to the acre during the dryest seasons of the year.
4. View in the Boquete Valley. Coffee planters' houses in the foreground. These public lands are the richest coffee lands in the whole Republic.

Probably the largest cultivator of public lands on the Atlantic coast of Panama is the United Fruit Company, which has taken up more than 25,000 acres near Bocas del Toro for the raising of bananas. Until the enactment of the new law providing for the issuance of perfect title to such lands on showing actual cultivation and by making a small payment per hectare, these lands were held with usufructuary title only, reverting to the public domain on abandonment. But under Law 19 of 1907, once absolute title is issued by the Administrator of Lands, the grantee becomes possessed of a title that is nonforfeitable.

The same holds true with respect to the *tierras indultadas* of the Pacific coast, also called *indultos*, which during the early years of Spanish occupation meant lands that had been released from the rest of the public domain by the payment of a certain sum to the King of Spain. This was done in the years 1705 and 1735 by the municipalities of Nata, Los Santos, Las Palmas, Alanje, and others of the "Colony of Tierra Firme," now the Republic of Panama, and these lands have been held *pro indiviso* by the inhabitants of these towns since that time up until the passage by the National Assembly of Law 3 of 1909, recently gone into effect, and which provides for the adjudication of provisional and later perfect title to these lands under certain conditions prescribed therein, for the setting of a standard value thereon and the terms of payment allowed. These *tierras indultadas* are situated on the Pacific coast only, to the south and west of Panama City, in the Provinces of Chiriqui, Veraguas, Los Santos, and Cocolé.

The present article will explain the procedure prescribed by the law mentioned above for the taking up of tracts of land of the *indultadas*, as these are the richer, more valuable and more accessible, and will be the first developed, due to the fact that the Panama-David Railroad will pass through them for a distance of nearly 300 miles. The purposes for which such lands may be acquired, the conditions under which provisional title will be issued, the price and terms of payment, and the conditions to be complied with in order to perfect title thereto, will also be explained.

This Law 3 of 1909 divides the occupants or holders of the *tierras indultadas* into two classes: Those who were occupying lands comprised therein at the time of the enactment of this law, and those that take up lands thereafter, under which latter division future investors would of course be classed.

Articles 5 to 26 of this law provide for the issuance of perfect title to settlers on the land at the time of the enactment of the law, but as this class of holders is comparatively small, these articles of the law will not be entered into, except in such cases where they also apply to future holders.

Article 27 establishes four purposes for which these lands may be adjudicated, viz:

First. For the establishment of plantations of a permanent character.

Second. For the establishment of annual cultivations.

Third. For homesteads or rural residences, with land for agricultural purposes and for the raising of stock.

Fourth. For the establishment of factories, installations of motive power, electric plants and other purposes of recognized public utility.

American investors will probably be interested only in paragraphs 1 and 4 of this article, as will be shown further on.

Paragraph 2, which reads: "For the establishment of annual cultivations," concerns principally the native squatter who makes a



OLD WATER-POWER SAWMILL IN THE PROVINCE OF CHIRIQUI.

While timber of many varieties is plentiful in the Republic, the want of proper facilities for converting it into material for building purposes has served to make the erection of wooden houses expensive.

small clearing in the forest, or bordering the savannas or *llanos*, on which he raises such annual crops as corn, rice, yams, yuccas, tobacco, plantains, etc., and who seldom remains in any one place for more than a few seasons. Usually he does not live on the land, but in the small villages scattered along the highways throughout the provinces.

The procedure to be followed in order to secure land for such purposes, i. e., for transitory tilling, is provided by Article 39. Permits for this purpose are usually issued on lands in the immediate environs of the villages, and not for a period of less than two years. Foreign investors would hardly be interested in taking up land under this provision.

Paragraph 3, reading as follows: "For homesteads or rural residences, with land for agricultural purposes and for the raising of

stock," is inserted for the benefit of the inhabitants of the larger towns, many of whom take up small tracts of land at a short distance from the town, for the building of a country house, which, together with corrals, garden, etc., is known as a *finca* or *quinta*, and which as a rule they occupy only during the dry season of the year. Article 38 provides that for such purposes not to exceed 20 hectares, approximately 50 acres, may be granted to any one person.

This leaves paragraphs 1 and 4, already quoted, which are the ones that will interest American capital.

Paragraph 1: "For the establishment of plantations of a permanent character." This is intended to provide for and encourage the taking up of lands for such purposes as stock raising, the planting of rubber, cocoa, cocoanut and coffee trees, sugar cane, bananas, fruit trees such as oranges, lemons, limes, and mangoes, and for lumbering.

For these purposes the amount of land that may be granted to any one person or corporation is not limited, and a uniform price of \$2.50 per hectare, or \$1 per acre, is set thereon. One-half of this sum is to be paid at the time of taking up the land, whereupon provisional title thereto is issued by the Administrator of Lands. The other half, without interest, is to be paid when perfect title is secured, which may be requested of the land office at any time during the four years next following issuance of provisional title, after a certain amount of work has been done on the land.

Therefore, it will be seen that 50 cents per acre will secure provisional title to these lands, no matter what area is taken up, and that by cultivation clear title may be secured at any time during four years by making certain improvements, and on the payment of the remainder of the cost price.

Large tracts of these lands have already been taken up under this provision of the law in the provinces through which the Panama-David Railroad is to run. By an arrangement made between the Governments of the United States and Panama, the Panama Railroad is to do the survey and construction work on this new road, and 5 survey parties have already been sent out. It is probable that between 60 and 80 miles of this road will be ready for operation within the next two years.

Paragraph 4 of article 27, reading "For the establishment of factories, installations of motive power, electric plants and other purposes of recognized public utility," will interest American investors because of the many large waterfalls to be found in the numerous mountain torrents of the Pacific coast of Panama, which never run dry, due to the fact that during the height of the dry season along the coast and on the plains it rains nearly every day on the highest slopes of the *cordillera*; and without doubt some of these cateracts will be

harnessed to furnish electricity, possibly for the operation of the railroad.

Article 38 limits the amount of land that may be granted for such purposes, and article 44 provides that the work undertaken on lands taken up under these terms must be completed within two years from the date of the issuance of the provisional title thereto, as follows:

ARTICLE 38. Adjudications for the establishment of factories, installation of motive power, electric plants and other purposes of recognized public utility, can not exceed the extent absolutely indispensable for the purposes expressed, in the judgment of experts. Opposition can be had to these adjudications with the only object of having the necessary extent fixed.—(P. 2.)

ARTICLE 44. The grantees for the purposes specified in paragraph 4 of article 27 will have two years, counting from the date of the provisional title, for establishing the factories, installations, plants, etc., and must solicit the definitive adjudication before the expiration of that term, proving the realization of the object for which adjudication is solicited.—(P. 4.)

Throughout the Provinces of Chiriqui, Veraguas, Cocle, and Los Santos are extensive ranges of natural grass lands belonging in common to the inhabitants of these provinces. Cattle graze at large on these *llanos*, and paragraph 3 of article 44 provides that no more than 30 acres of such lands may be granted to any one person, as follows:

For the raising of cattle, up to 12 hectares of savanna lands may be adjudicated in usufruct, always that no anterior rights are prejudiced.

This provides for the construction of private corrals and branding pens out on the open range, and for the planting in grass of *potreros* or fattening pens, along the banks of the rivers traversing the ranges. Such pens are found to be of great convenience to cattlemen, as the small coasting steamers of the west coast can ascend the rivers for miles and take on cattle direct from the pens for the Panama market. Every landholder has the right to graze an unlimited number of cattle on the public range.

Usufructuary title only is granted to such tracts on the ranges, reverting to the government of the province if abandoned.

Certain parts of the ranges are entirely withheld from private acquisition, by paragraph 2 of article 28, as follows:

The following are not adjudicable: The savannas and fields that are or can be natural pasture grounds, such as the *sestaderos* and *abrevaderos* (resting and watering places for cattle) of the ranges and woods contiguous thereto.

By *sestaderos* and *abrevaderos* is understood those places to which cattle are accustomed to go with regularity to satisfy the necessity of rest, water, and shade, respectively.

While the above quoted section of this law, by withholding from private acquisition these parts, affects a certain portion of the *indultos*, yet it is by far the minor part, and has no reference to the vast selvas of timber lands abounding in hard woods and rubber, nor

the long level stretches of sandy beach land covered with light scrub and wire grass, along the Pacific coast of Chiriqui and Veraguas, on which are found thousands of wild cocoanut trees. At one time a considerable quantity of cocoanut oil was extracted by the natives from the nuts gathered along the Chiriqui coast, stretching around Punta Burica into Costa Rica for a distance of more than 100 miles; and it is certain that this industry will again be exploited with the renewed activity in this section.

Such lands as these of the coast are not considered savannas, although by burning over during the dry season and then planting in Guinea or Texas bunch grass, they make excellent pastures for fattening stock.

The provision of the law withholding the *sestaderos* and *abrevaderos* thereby provides for the resting and watering of cattle when on long drives from one range to another, or when being driven from an interior ranch down to the seacoast for shipment.

It has now been shown what lands of the *indultadas* may be acquired, provisionally first, and at some time during the four years next following, by cultivation, with perfect title, and what lands are to still be held as commons to all the inhabitants and landholders of the provinces within which they are located.

Once the tract of land desired has been picked out, for instance 1,000 or 25,000 acres of timber lands in the western part of Chiriqui, or along the coast of Veraguas, or of lands suitable for coffee growing, such as those of the Boquete Valley, where there is at present a colony of American coffee planters, and investigation has shown that its boundaries will not conflict with those of neighboring landholders, articles 10 and 29 provide for the next step necessary, as follows:

ARTICLE 10. If the petitioner should omit some of the formalities established by the foregoing article, the administrator will point out such omissions that they may be corrected, and once corrected, will be proceeded with as in the case of article 14.

ARTICLE 29. Every natural or corporate person that desires to acquire the possession of a tract of land for any of the purposes enumerated in article 27 will direct a petition to the Provincial Administrator of Lands, in which he will manifest the location of the land, its boundaries, its approximate extent, the name or names by which it is known, and that by which it is to be distinguished in the future. Such memorial will be accompanied by the testimonial proof necessary to demonstrate that the land is adjudicable in accordance with this law.

The petition must also recite the fact that the petitioner will recognize such servitudes on the land as public highways, railroads, telegraph and telephone lines, bridges, and wharves.

After the petition has been presented article 12 will then apply, reading as follows:

ARTICLE 12. If the memorial be in the required form and the accompanying proofs be satisfactory, the administrator will order the official surveyor to draw up a plat in duplicate of the land referred to in the petition; which plat should set forth the servitudes to be recognized by the land and those the petition might contain.

Article 31 will next apply, providing for the posting and public announcement of the petition, and for its publication in the official organ, as follows:

ARTICLE 31. If the memorial referred to be in proper form, the Administrator of Lands will order a copy of the petition made to be posted for thirty days in a visible place in the office, and which will be read in public one holiday (*dia feriado*), such reading being previously announced by a roll of the drum. The petition will also be published in the official gazette.

Article 32 provides for the entering of such publication made in the official gazette, in the record which is kept of all petitions for land, in the office of the Administrator of Lands; and for the receiving of protests against the grant being made by parties claiming rights on the



CROSSING THE SAVANNAS (PLAINS) OF THE PROVINCE OF CHIRIQUI, PANAMA.

The new railroad now being surveyed from Panama to David will open up large tracts of this fertile land to development.

land, or by anyone who can show that the land requested is not adjudicable in accordance with this law; and reads as follows:

ARTICLE 32. Within the fifteen days next following the date of the receipt of such gazette being noted in the record (*expediente*), opposition may be made by all those considering themselves prejudiced by the adjudication solicited.

Article 33 provides for the filing of protests referred to in the foregoing article, as follows:

ARTICLE 33. When the concession sought for attacks general interests, the opposition referred to in the foregoing article may be made by the municipal solicitor, or any other resident of the district; but even in this last case the solicitor will be considered as party participant.

Efforts have been made from time to time to secure long narrow strips of land bordering the coast or river banks for miles, without

taking up the intervening portion, and it is quite evident that to make such a grant would be unfair, as by so doing great areas would become to a certain extent isolated, and this provision is inserted to cover such a contingency.

No opposition need be expected, however, to petitions for grants made in good faith and which are not prejudicial to the interests of the province; as the Panamanians, especially those of the interior towns, welcome the American investor and settler, and are ever ready to assist rather than hinder him.

Articles 34 and 37 will next apply, as follows:

ARTICLE 34. The term referred to in article 31 having expired, and no opposition pending, the administrator will order the surveyor to draw up in duplicate the plat in accordance with the requirements established in article 13, and after the said plat has been drawn up, knowledge of the same will be given to the petitioner, in order that within three days he make any objection he may consider convenient. Once the plat measurement and report has been accepted and approved by the administrator, and objections presented by the party interested, if any, resolved; and proof being shown of having paid into the office of the treasury the part of the value of the lands, in accordance with the price and form fixed by this law, the administrator will issue the provisional title corresponding thereto.

The title will consist of the resolution by which the adjudication is made, which resolution will contain precisely:

- (a) Date, object of the petition, name and domicile of the petitioner.
- (b) Copy of the receipt which proves having made payment of half the value of the land.
- (c) Area and description of the land with a clear statement of its boundaries; and
- (d) Number of the record (*expediente*) created by the adjudication.

A copy of the plat of the land and of the act of delivery of the same will also form part of the title.

An authenticated copy of this resolution will be forwarded by the Administrator of Lands to the notary of the circuit for the public deed corresponding thereto to be spread on the record, which will then be signed by the administrator in the name of the nation.

ARTICLE 35. The measurement of the land solicited and the drawing up of the plats will be in charge of the official surveyors paid by the Republic.

ARTICLE 37. The expenses incurred in the opening of the paths (*trochas*) necessary for the measurement of the land and drawing up the plats are to be paid by the party interested. Such *trochas* will have a minimum width of 2 meters.

Along the river banks it will not be necessary to open up *trochas* for the survey of the boundaries, nor along the coast line, while inland on lands bordering on the *llanos* very little is required. On the heaviest timber lands, both along the coast and back in the hills, there is found but very little underbrush that is difficult to penetrate as the interwoven branches and leaves overhead shut out the sunlight, and *trochas* through such lands can be run very rapidly. An American cattleman in Chiriqui showed the writer where he with five *machete* men had once opened up an ox-cart trail 21 miles in length through the virgin forest in the short space of five days. Of course no stumping was done, but this merely shows with what ease *trochas* can be run on such lands.

Chapter VI, commencing with article 44, provides for the procedure to be followed and the amount of work that must first be done on the land in order to perfect title, within the term of four years, as required by this law. Article 44 reads as follows:

ARTICLE 44. The holders of provisional property titles to whom article 31 of this law refers have the right to request the issuance to them of the corresponding definitive titles, as follows:

First. The grantee for agricultural plantations of a permanent character, within the term of four years counted from the date of the provisional title, in all cases it being proved that the land is fenced with fences of a permanent character and that it is cultivated in at least four-fifths part of its extent.

If the cultivation be of an extent less than that part, only the part cultivated will be definitively adjudicated, and the remainder will be declared vacant; but the grantee will in all cases pay, as a penalty for the resolution of the contract, the price to be paid as if the total adjudication had taken place.



THE RANCH HOUSE OF THE LATE PRESIDENT OBALDIA, DAVID, PANAMA.

Grantees must perfect title within four years, otherwise such parts of the land provisionally adjudicated to them which have not been improved by cultivation, fencing, etc., will be declared vacant. However, in such case, their title to such portions under cultivation or otherwise in use will be recognized, and they may still perfect their title thereto. Article 45 provides for such a contingency, as follows:

ARTICLE 45. The time fixed in the foregoing article (four years) having expired, the Provincial Administrator of Lands will proceed officially to inspect the lands provisionally adjudicated in conformity with the dispositions of this law, and will declare vacant the lands on which the conditions prescribed thereby as a motive for the concession have not been fulfilled; but will recognize the definitive property rights of the parts cultivated or occupied materially, always that the grantee fulfill the remaining obligations with reference to the issuance of the definitive titles.

From article 44 it will be seen that at least four-fifths of the land taken up must be in use and fenced in by the end of four years at the

latest. Should this be done before the expiration of this period, however, perfect title may be obtained at such time.

Barbed wire fencing with live posts of the *jobite* tree, somewhat similar in appearance to the English hedge, is the usual fencing employed in the interior of Panama, although in the forests the wire is run from tree to tree, thereby entirely eliminating post setting. This is a very inexpensive method of fencing in large areas and serves the purpose equally as well. The average cost in Panama of barbed wire fencing with *jobite* posts is 1 cent per linear foot.

After petition for the definitive or perfect title to the land taken up has been made to the Provincial Administrator of Lands, articles 46, 47, 48, and 52 will next apply, as follows:

ARTICLE 46. A petition for definitive property title being received, the Administrator of Lands will order that the official surveyor report with regard to the state of the fences, houses, and cultivations; with regard to the development of the industry for which the land was provisionally conceded; and, in general, whether or not the conditions required by the present law for acquiring the definitive property rights according to the class of adjudication have been complied with.

ARTICLE 47. The Administrator of Lands will make an ocular inspection of the land referred to by the petition.

ARTICLE 48. The petitions which are made for the issuance of definitive property titles will be published in the official gazette, division of public and private lands.

ARTICLE 52. The definitive property title will contain the provisional title and the resolution by which same is conceded, in which reference will be made to the remaining documents presented and the record of having paid the value of the adjudication.

If the definitive title is to be issued solely for a fraction of the land conceded provisionally, record of same will be made specifying the legal motives for the reduction. In this case the Surveyor will draw up a new plat of the land that is adjudicated.

Article 51 defines what is to be considered as "cultivation" under this law, as follows:

ARTICLE 51. The following are considered cultivated:

First. Lands cleared, plowed, hoed, and prepared for the cultivation of plants in conformity with the usage of modern agricultural art.

Second. Lands sown in permanent useful plants at a distance of no more than 10 meters one from the other, for which purpose it has previously been cleared.

Third. Lands dedicated to the cultivation of permanent plants under natural shade, at a distance of no more than 4 meters one from the other.

Fourth. That occupied by the houses or habitations and their annexes.

The first paragraph of this article has reference to such cultivation as truck gardening, the raising of citrus fruits, etc.

The second paragraph refers to lands planted in cocoa, coffee, cocoanut, and banana trees, and plants of a similar nature which are set out at a distance from each other ranging from 12 feet to 30 feet. By allowing 10 meters as a maximum distance sufficient margin is provided.

The third paragraph refers to forest lands on which rubber trees are planted. When the land is to be devoted to rubber culture very little clearing is done, as the young rubber trees thrive best in the deep gloom of the forest where the ground is always moist.

Paragraph 4 is self-explanatory.

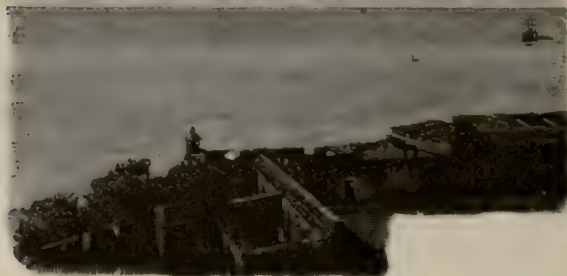
Chapter V, articles 53 to 67, provides for the manner in which opposition to petitions for land must be made and for appeals by either party from the decision of the Provisional Administrator to the Administrator-General. Conclusive proof substantiating the objections made must be presented within eight days thereafter, and the Provisional Administrator is allowed sixty days within which to render judgment. Within the eight days next following appeal may be taken by either party to the Administrator-General.

Article 68 fixes the value of the land taken up for the different purposes already enumerated, which, as already stated, is that of \$2.50 per hectare, or approximately \$1 per acre, one-half payable on the issuance of provisional title and the remainder in order to perfect title.

Sixty per cent of the product of the sale of the *tierras indultadas* goes to the national treasury and 40 per cent to that of the municipality within which the land is situated.

A provincial administrator of lands for each province has been appointed, as well as an Administrator-General for the entire Republic, the former having offices in the capitals of the various provinces, and the latter in Panama City.

The National Navigation Company of Panama has recently added another coasting steamer to their Pacific fleet; the National Government is carrying on extensive improvement works in many of the ports; both of which, together with the assured construction of the Panama-David Railroad and the liberal provisions of this law, argue the early development of the *tierras indultadas* of Panama.



LATIN-AMERICANS AT WEST POINT " " "

THE recent graduation from West Point of Cadet JOSÉ MARTIN CALVO, son of the Costa Rican Minister to the United States, brings to mind the fact that a number of Latin-Americans have enjoyed the hospitality of this famous institution, and as the guests of the nation availed themselves of the privilege of pursuing the same course of instruction which is demanded from the aspirant for a commission in the American



MOUNTED PARADE.

Although all cadets are trained in engineering, artillery, infantry, and cavalry tactics, mounted exercises are perhaps conducted with more enthusiasm than movements in the other branches of military art.

army. As far back as 1816 the records show that young men from South America were admitted as cadets. LOUIS BLANCO and MATEO BLANCO were on the rolls that year, while in 1823 we find the name of JULIAN A. D. PAEZ, surely some relative of the famous cowboy general of Venezuela who captured a fleet with a troop of cavalry. No other Latin-Americans were entered at the academy until 1884, when we find the name of ANTONIO BARRIOS, of Guatemala; 1889, JOSÉ ANDRES URTECHO, Nicaragua; 1893, GORGE ALBERTO GUIROLA, Salvador, and FRANCISCO ALCÁNTARA, Venezuela; 1897, CARLOS GUTIERREZ, Salvador; 1899, LUIS IGLESIAS, Costa Rica, and ANDRES PONTE, Venezuela; 1902, ARTURO R. CALVO, Costa Rica, elder son of the Costa Rican Minister; 1905, FRUTAS TOMAS PLAZA, Ecuador; 1907, CARLOS ALFONZO ZALAYA, Nicaragua; JOSÉ MARCH DUPLAT, Venezuela.



MARCHING TO THE MESS HALL.

Cadet corps in undress uniform and without arms on the way to meals.

Of these, three received diplomas showing that they had pursued the same studies and submitted to the same discipline as other members of the academy. They are ANTONIO BARRIOS, of Guatemala, and ARTURO ROBERTO CALVO, and JOSÉ MARTIN CALVO, of Costa Rica. JOSÉ ANDRES URTECHO, FRANCISCO ALCÁNTARA, GORGE ALBERTO GUIROLA, and ANDRES PONTE received certificates of study, showing they had remained at the academy during the four years which the regular course requires.

The others dwelt but a short time in the institution. Cadet JOSÉ CALVO had a noteworthy career at West Point. He stood 18 in a class of 82, was champion gymnast, winning the right to wear the "A," qualified as expert rifleman, and is the first foreigner to have worn



MANEUVERING THE GUNS.

Light artillery drill is most popular with the embryo officers, who acquire great skill both as gunners and drivers.

chevrons, holding the rank of sergeant in the corps, signal proof of the approbation of his superiors, a record that Mr. CALVO may well be proud of.

To show how his brother cadets regard him, we quote from the "Howitzer," the West Point annual: "There is only one thing to regret in connection with José, and that is, that Costa Rica has the preference of claiming his citizenship. However, if the 'Spirit of Old West Point' could bring him into our army, we know that he would be there," an appreciation testifying that the young Costa Rican has stood the rigorous test of discipline and study compassed in the four years' course at the academy in a most honorable manner, winning the affection and esteem of his fellow-officers.

LATIN-AMERICAN COMMERCE IN 1909: A GENERAL SURVEY " " "

A STUDY of the whole Pan-American field of commerce and trade reveals many interesting and instructive facts. While the United States is an essential part of Pan-America, the general facts about its exports and imports are so frequently discussed in the newspapers of the world that less attention is given to them in this summary than to those of the Latin-American countries. Already there has been published in the July and August numbers of the MONTHLY BULLETIN the annual review of each one of the American Republics. Under the head of individual countries can be found the details which may be desired by anyone making a special study of a particular country. The purpose of this discussion, on the other hand, is to give a bird's-eye view of the whole Pan-American commercial situation. The facts and figures have been compiled most carefully, and it is hoped that they will be helpful to all those who are seeking the information they convey.

There is no better way of appreciating the present importance of a particular commerce than by measuring its development as shown by comparative figures of exports and imports covering a period of ten or more years. A comparison of the commerce of Latin America for 1909 with the average trade for the three years, 1896-1898, must necessarily surprise the majority of persons who are not familiar with the onward movement which has characterized Latin America and will certainly interest those who are more familiar with the field.

The total foreign trade of the 20 Republics lying south of the United States averaged for the three years, 1896-1898, \$923,784,304, in contrast to \$2,144,685,303 in 1909, or a magnificent increase in a little more than a decade of \$1,220,900,999. Separating these totals into imports and exports, we find that in the same period Latin America's imports grew from \$416,657,607 to \$895,679,943, or an increase of \$479,022,336. Exports developed from \$507,126,697 to \$1,249,005,360, or an increase of \$741,878,663.

It is impossible, within the strict limitations of space, to review here the growth of the commerce of each one of the 20 Latin-American Republics, but the Argentine Republic is selected as evidence of what

one of the principal nations has done during the last ten or twelve years. The average total foreign trade of Argentina for the three years, 1896-1898, was \$223,227,334; in 1909 this had grown to the notable sum of \$700,106,623, or an increase of \$476,879,289. Analyzing the imports and exports, we find that the former increased during this period \$196,795,428 and the latter \$280,083,861.

The growth shown by Brazil, Chile, Uruguay, Bolivia, Mexico, Cuba, and Panama is almost as remarkable, as can be ascertained by making the comparisons.

There is incorporated in the text a table comparing the average trade for 1897, twelve years ago, with that of 1909 for, respectively, Latin America as a whole, the Latin Republics in North America, and South America proper.

To realize, in studying these figures, the great potentialities of the 20 Latin-American Republics reaching from Mexico and Cuba south to Argentina and Chile, it must also be borne in mind that their combined area is nearly three times that of the United States proper, or approximately 9,000,000 square miles, while their population, yet in the infancy of its possibilities, is nearly 70,000,000. Not a single country is overcrowded, while nearly all of them are seeking immigration.

The trade depression which began in the United States in the fall of 1907 extended to all the countries of Latin America, although in unequal degrees. Its principal effect was felt in Mexico, extending through the year 1909. The result was that there was a decrease in the total of Mexican trade for the fiscal year ending June 30, 1909, of over \$38,000,000. This decrease was due almost entirely to a falling off in the import trade; in other words, a national curtailment of purchases. The recovery in Mexico has been sharp. The trade balance for the year, amounting to over \$37,000,000, in the main brought about by the decreased importations, has more than restored the commercial situation to a position even more favorable than existed prior to the beginning of 1908. This is shown by the increased importations in the last six months of 1909 and in the first months of 1910, which indicate even in their incomplete form a large increase. For instance, the exports from the United States to Mexico for the full calendar year 1909 exceeded those for the year 1908 by more than \$7,000,000, all of which is due to the last six months of the year. The opening months of 1910 show that this increase continues and in a larger degree.

In Nicaragua, owing to special conditions, there was also a decrease in trade.

In South America of the ten Republics there were decreases in the volume of foreign trade in four—Chile, Colombia, Ecuador, and Peru.

In Chile the condition which brought about the decrease in trade was to a large extent monetary and local. From its very nature it is transitory, and the large trade balance of about \$16,000,000 must restore a sound condition.

In Cuba and Haiti and in the six South American Republics not mentioned above, the year 1909 from a commercial standpoint was exceedingly prosperous. The increase in trade in Brazil was nearly \$100,000,000; in the Argentine Republic, over \$60,000,000; in Cuba, nearly \$25,000,000; in Haiti, \$3,800,000; in Uruguay, nearly \$7,000,000; in Venezuela, nearly \$2,500,000; in Bolivia, nearly \$2,000,000; and in Paraguay, about \$750,000.

Taken altogether and allowing for decreases in seven Republics out of twenty, there was a net increase in the foreign trade of Latin America of \$148,924,004. The following table gives the foreign trade of Latin America for the two years 1908 and 1909:

Country.	Imports, 1908.	Imports, 1909.	Exports, 1908.	Exports, 1909.	Total foreign trade.	
					1908.	1909.
Mexico.....	a\$110,878,732	a\$78,266,513	a\$121,370,101	a\$115,550,309	a\$232,248,833	a\$193,816,822
Guatemala.....	5,811,586	5,251,317	6,756,143	10,079,219	12,567,729	15,330,536
Salvador.....	4,240,580	4,176,931	5,787,677	6,401,349	10,028,257	10,578,280
Honduras ^b	2,669,292	2,581,553	1,731,875	1,990,601	4,401,167	4,572,154
Nicaragua ^c	3,000,000	3,500,000	4,500,000	3,600,000	7,500,000	7,100,000
Costa Rica.....	5,629,498	6,109,938	7,764,124	8,176,257	13,393,622	14,286,195
Panama.....	7,806,812	8,756,308	1,827,050	1,502,475	9,633,862	10,258,783
Cuba.....	85,218,391	a86,791,371	94,603,324	a117,563,867	179,821,715	a204,355,238
Dominican Republic	5,127,463	4,645,378	9,486,344	8,177,330	14,613,807	12,822,708
Haiti.....	d4,701,160	5,712,513	e8,500,000	11,008,483	d13,201,160	16,720,996
Argentine Republic.	272,972,736	302,756,095	366,005,341	397,350,528	638,978,077	700,106,623
Bolivia.....	16,293,018	14,774,776	19,295,528	22,702,725	35,588,546	37,477,501
Brazil.....	173,017,849	179,690,125	215,266,136	308,331,829	388,283,985	488,021,954
Chile.....	96,215,101	94,349,795	114,892,666	110,314,767	211,107,767	204,664,562
Colombia.....	13,513,892	10,561,047	14,998,744	15,513,346	28,512,636	26,074,393
Ecuador.....	10,277,365	9,352,122	13,279,604	12,439,400	23,556,969	21,791,522
Paraguay.....	4,072,952	3,640,728	3,867,095	5,071,600	7,940,047	8,712,328
Peru ^c	30,000,000	26,000,000	30,500,000	29,000,000	60,500,000	55,000,000
Uruguay.....	37,636,272	38,643,035	41,908,222	47,621,291	79,544,494	86,264,326
Venezuela.....	a9,778,810	10,120,398	a14,560,830	16,609,984	a24,339,640	26,730,382
Total Central Amer- ica.....	29,157,768	30,376,047	28,366,869	31,749,901	57,524,637	62,125,948
Total Latin Ameri- can Republics in North America.....	235,083,514	205,791,822	262,326,638	284,049,890	497,410,152	489,841,712
Total South America	663,777,995	689,888,121	834,574,166	964,955,470	1,498,352,161	1,654,843,591
Total Latin America.....	898,861,509	895,679,943	1,096,900,804	1,249,005,360	1,995,762,313	2,144,685,303

a Fiscal year ending June 30.

b Fiscal year ending July 30.

c The figures for both years are estimates.

d Fiscal year ending September 30.

e Estimate.

The year 1909 was a good trade year for the United States, and yet there was a decrease in its foreign trade amounting to about \$25,000,000. As against this, Latin America increased its trade nearly \$149,000,000, and in reality more than this if the figures for Mexico for the calendar year were available for comparison.

In Central America the increase in the trade was over \$4,600,000. Taking South America as a whole, it was nearly \$167,000,000.

One of the most important elements in the commercial situation of Latin America is the large trade balance that all of these countries, except Panama, ordinarily enjoy. In Panama the large imports due to the building of the canal give a fictitious position to the comparison of imports and exports.

In 1908 (omitting Panama) there were trade balances in favor of 17 of the Republics, amounting to over \$205,000,000, and balances against Honduras and Paraguay amounting to about \$1,150,000.

In 1909 the same 17 Republics had trade balances amounting to nearly \$360,000,000, and the balance against Honduras and Paraguay was a little over \$2,000,000. Mexico, which had a trade balance of about \$10,500,000 in 1908, increased its credit in 1909 by a balance of \$37,283,796; Cuba increased its balance from about \$9,400,000 to about \$31,000,000, and Brazil from \$42,250,000 to \$128,640,000.

The following table shows the amount of increase in all the Latin-American Republics occurring in the trade of 1909 as compared with 1908, and also the trade balances for or against the Republics for both years.

Country.	Increase in trade, 1909.	Trade balance.	
		1908.	1909.
Mexico.....	<i>a</i> \$38,432,001	<i>b</i> \$10,491,369	<i>b</i> \$37,283,796
Guatemala <i>c</i>	2,762,807	944,557	4,827,902
Salvador.....	550,023	1,547,097	2,224,418
Honduras.....	171,977	<i>d</i> 937,417	<i>d</i> 590,943
Nicaragua.....	<i>a</i> 400,000	1,500,000	100,000
Costa Rica.....	892,573	2,134,626	2,066,319
Panama.....	624,921	<i>d</i> 5,979,762	<i>d</i> 7,253,833
Cuba <i>b</i>	24,533,523	9,384,933	<i>b</i> 30,772,106
Dominican Republic.....	<i>a</i> 1,791,099	4,358,881	3,531,952
Haiti.....	3,519,841	<i>e</i> 3,798,840	<i>f</i> 5,295,970
Argentine Republic.....	61,128,556	93,032,605	94,594,433
Bolivia.....	1,888,955	3,002,510	7,927,994
Brazil.....	99,737,969	42,248,287	128,641,704
Chile.....	<i>a</i> 6,443,205	18,677,565	15,964,972
Colombia.....	<i>a</i> 2,438,243	1,484,852	4,952,300
Ecuador.....	<i>a</i> 1,765,447	3,002,239	3,087,278
Paraguay.....	772,281	<i>c</i> <i>d</i> 205,858	<i>c</i> <i>d</i> 1,430,872
Peru <i>g</i>	<i>a</i> 5,500,000	<i>h</i> 500,000	3,000,000
Uruguay.....	6,719,832	4,271,950	8,978,256
Venezuela <i>b</i>	2,390,742	4,782,020	6,489,586
Increases.....			\$205,693,999
Decreases.....			56,769,995
Net increase.....			148,924,004
Trade balances, for; 1908.....			205,162,331
Trade balances, against; 1908.....			7,123,037
Net balance, for; 1908.....			198,039,294
Trade balances, for; 1909.....			359,738,986
Trade balances, against; 1909.....			9,253,833
Net balance, for; 1909.....			350,485,153

a Decrease.

b Fiscal year ending June 30.

c 1908.

d Against.

e Fiscal year 1907-8.

f Estimate.

g The figures for both years are estimates.

h 1907.

An examination of the kinds of goods imported into Latin American countries and from whence they come can be best undertaken by dividing Latin America into two sections—first, South America, and second, the Republics in North America and the islands. In the former the bulk of the trade is with Europe, and in the latter it is with the United States.

In South America an examination of the trade of two or three of the leading States will give an index to the whole.

In the Argentine Republic the imports for the year 1909, under 19 major classifications, were as follows:

Classification.	Value.	Classification.	Value.
Live animals.....	\$1,545,853	Other metals and manufactures.....	\$10,210,824
Food products.....	23,014,691	Agricultural implements and machinery.....	16,651,610
Tobacco.....	6,201,028	Railway cars, equipment, rails, etc.; carriages, wagons, automobiles, bicycles, etc.....	31,711,285
Wines, liquors, and other beverages.....	13,410,486	Coal, coke, earthenware and glass products, graphite, asphalt, etc.....	21,758,269
Textiles and manufactures therefrom.....	59,923,699	Building materials.....	28,365,889
Oils.....	11,852,943	Electrical apparatus.....	4,216,914
Chemical and pharmaceutical products.....	10,203,393	Miscellaneous.....	8,257,635
Paints, dyes, etc.....	1,997,105		
Timber, woods, and manufactures thereof.....	7,639,715	Total.....	302,756,095
Paper and manufactures thereof.....	6,638,359		
Hides, skins, and manufactures.....	2,581,165		
Iron, steel, and manufactures.....	36,575,232		

In textiles the principal import was cotton cloths, \$33,761,176; next in order came woolens, \$11,198,397; silks, \$5,229,130.

The principal iron and steel imports were: Wire, to the value of \$4,154,862; nails, \$2,825,473; bar and sheet iron, \$4,056,804; galvanized iron (not including wire), \$7,675,363; bolts and nuts, \$1,534,851; cooking and household utensils, \$989,724; bath tubs, \$432,005; windmills, \$581,472; wire cloth, \$345,833.

Of the agricultural implements and requisites the principal imports were: Plows, \$1,366,885; sacking for bags, \$6,301,149; binding twine, \$1,260,989; reapers, \$1,110,552.

Steel rails to the value of \$8,780,016; railway cars, \$4,960,362; and automobiles, \$793,656 were imported.

Coal to the value of \$15,313,398 and coke to the value of \$373,410 were brought in during the year. About 14 per cent of all the coal was reexported or, rather, sold to foreign vessels touching at Buenos Aires.

Under building material appear iron tubing, amounting to the value of \$2,342,582, and pine and spruce lumber, \$16,660,298.

In round numbers the six countries leading in the Argentine import trade were as follows: United Kingdom, \$99,200,000; Germany, \$44,500,000; United States, \$43,000,000; France, \$30,800,000; Italy, \$26,850,000; Belgium, \$13,500,000.

Compared with the preceding year there was an increase of trade for the United States of 21 per cent; for Germany, 18 per cent; for the United Kingdom, 6 per cent.

In Brazil the imports, divided primarily into four classifications, amounted in value to \$179,690,125. The following table shows the amount of the imports, in each of the four classes, from the principal commercial countries of the world. Class I comprises live animal products; Class II, raw materials and products intended for use in the arts and sciences; Class III, manufactured products; and Class IV, food products.

Country.	Class I.	Class II.	Class III.	Class IV.
Germany.....	\$11,850	\$5,411,558	\$22,076,815	\$506,780
Argentina.....	478,424	211,330	124,034	17,108,801
Austria-Hungary.....		651,154	1,432,120	282,551
Belgium.....	161,621	1,199,815	6,668,171	10,400
United States.....	17,536	3,326,954	15,701,206	3,219,838
France.....	51,128	1,988,624	13,734,800	2,835,786
United Kingdom.....	44,061	17,301,500	29,836,270	1,059,446
Spain.....	5,088	173,176	197,405	1,146,332
Holland.....	19,085	60,996	1,331,866	337,030
Portugal.....	14,275	198,085	975,328	8,806,327
Italy.....	1,140	619,633	1,811,246	2,804,538
Switzerland.....	27,888	47,983	973,759	913,539
Norway.....		11,614	438,922	1,054,397
Uruguay.....	524,002	107,107	177,684	5,485,264
Canada.....		80,047	59,050	814,426
Other countries.....	196,979	1,184,016	734,447	3,664,208
Total.....	1,393,077	32,573,602	95,673,783	50,049,663

For the year 1908 the totals in the classes were: Class I, \$863,868; Class II, \$33,062,963; Class III, \$91,054,980; and Class IV, \$48,036,027. In Class III the iron and steel manufactures, other than machinery, amounted to \$19,387,837. The value of the machinery imported was \$17,132,316. Other principal imports were cotton manufactures, \$12,479,495; carriages and vehicles, \$2,767,500; manufactures of wool, \$2,472,616; manufactures of porcelain, \$2,532,266; paper manufactures, \$3,953,983; chemical products and pharmaceutical supplies, \$4,256,058. The principal imports under carriages and vehicles were railroads and street cars, \$1,974,306. Under iron and steel manufactures, the principal items were steel rails, \$7,077,896; building hardware, \$2,527,855; wire, \$1,774,776; cutlery, \$721,292. Under machinery there was imported electrical machinery, \$2,356,846; industrial machinery, \$3,117,823; locomotives, \$2,016,490.

The five countries having the lead in Brazilian trade in 1909 were United Kingdom, \$48,241,287; Germany, \$28,007,001; United States, \$22,265,534; France, \$18,610,398; Argentine Republic, \$17,922,587. Of these countries, compared with the preceding year, France increased its trade 19 per cent; the United States, 6.2 per cent; Germany, 5.1 per cent; Argentine Republic, 2.1 per cent; and the United Kingdom lost 3.2 per cent.

Chilean imports for the year 1909 reached a total of \$94,349,795. Arranged into ten groups, these imports were as follows:

Article.	Value.	Article.	Value.
Textiles.....	\$23,090,729	Animal products.....	\$10,065,394
Mineral products.....	16,845,468	Paper, etc.....	2,537,925
Coal, oils, etc.....	16,532,359	Chemical products.....	2,016,405
Vegetable products.....	10,508,948	Wines and liquors.....	1,956,006
Machinery.....	10,174,882	Arms.....	828,316

In textiles, nearly one-half the imports, \$10,412,753, were from Great Britain; next came Germany with \$5,512,716; India was third with \$2,305,570; and France fourth with \$2,214,008. The United States sent textiles only to the amount of \$744,498.

In mineral products Germany led with \$6,365,454, closely followed by Great Britain with \$6,185,639; Belgium was third with \$1,775,124, and the United States fourth with \$1,495,919.

Of coal, oils, etc., Great Britain led with \$7,365,206, followed by the United States, \$3,332,720, Australia, \$3,191,815, and Peru, \$1,681,476.

In vegetable products Peru led with \$2,721,470. Then, in order, came Germany, \$1,704,323, Great Britain, \$1,493,931, and the United States, \$1,299,001.

With the exception of small quantities from Belgium and France, practically all the machinery imported came from three countries, Germany, \$4,122,739, Great Britain, \$3,987,823, United States, \$1,396,477.

Nearly two-thirds of the animal products, \$6,386,801, came from the Argentine Republic.

More than one-half the paper, etc., came from Germany, \$1,352,571; the United States followed with \$485,079, and Great Britain with \$311,776.

Germany led also in chemicals, \$817,347, followed by Great Britain, \$479,511, France, \$353,295, and the United States, \$232,282.

In wines and liquors the principal importation was from France, \$613,728, followed by Great Britain, \$466,306, and Italy, and Spain each with \$235,667.

Germany and Great Britain were the principal exporters of arms to Chile, the former sending \$353,253 and the latter \$292,488.

The five leading countries in the import trade of Chile were United Kingdom, \$31,842,746; Germany, \$22,436,041; United States, \$9,601,084; Argentine Republic, \$6,617,054; France, \$5,663,495. Compared with the preceding year there was an increase in United States trade amounting to 10 per cent; in British trade amounting to 4 per cent; and a loss in German trade of over 18 per cent.

The total foreign trade of the 10 South American Republics for the year 1909 amounted to \$1,654,843,591, of which \$689,883,121 was imports. Of this latter amount, the United Kingdom furnished \$211,514,783; Germany \$114,536,046; the United States \$98,289,962; France \$63,300,107; and Belgium \$28,971,569.

The percentages of the trade enjoyed by the five leading commercial nations were United Kingdom 30.7; Germany 16.6; United States 14.2; France 9.2, and Belgium 4.2.

For the 10 Latin Republics in North America, Mexico, Cuba, and Costa Rica may be taken as indicating the general character of the import trade. The imports of Mexico for the fiscal year ending June 30, 1909, were \$78,266,513. These imports are classified as follows:

Mineral substances.....	\$22, 294, 220
Vegetable substances.....	14, 683, 290
Machines and apparatus.....	10, 060, 751
Textiles and manufactures thereof.....	7, 952, 336
Animals and animal substances.....	6, 284, 203
Chemical and pharmaceutical products.....	4, 827, 861
Wines, liquors, and beverages.....	2, 783, 193
Paper and its manufactures.....	2, 324, 232
Vehicles and cars.....	2, 156, 646
Arms and explosives.....	1, 266, 550
Miscellaneous.....	3, 633, 729

Under the heading of mineral substances, iron and steel form the principal items, divided into two classes: First, construction and industrial material, \$7,727,594, and second, manufactures, \$2,448,-688; total, \$10,176,282. Stones, earths, and manufactures thereof were imported to the value of \$8,200,185. Under vegetable substances are classified raw textile fibers, \$2,229,393; fruits and grains, \$4,043,630; wood and lumber, \$2,457,983; manufactures of wood, \$2,292,489. Under textiles and manufactures thereof were imported: Cotton goods, \$4,674,086; linen, hemp, etc., \$457,962; woolen goods, \$1,593,070; silks, \$739,138; silk mixed with other fibers, \$437,393; artificial silk, \$50,686. Under animal substances were: Live animals, \$673,669; meats, skins, horns, etc., \$558,515; animal products, canned meats, eggs, butter, cheese, etc., \$2,774,917; shoes, skins, hides, and fur manufactures, \$2,279,393.

Practically all of the live animals were imported from the United States, \$628,575 out of \$673,619. Very little fresh meat was imported into Mexico. The great bulk of preserved meats and fish, \$115,094 out of \$146,856, came from the United States; Norway was next with \$15,123. All fresh fish, oysters, etc., \$17,444, came from the United States. Canned meats were imported to the value of \$882,924, of which United States sent \$390,124, Spain \$285,791, France \$77,729, Germany \$36,510, and Switzerland, Norway, Great Britain, and other countries lesser amounts. Eggs to the value of \$114,872 and

lard to the value of \$1,025,284 were imported from the United States, as was also the bulk of butter, \$129,961 out of \$168,510. Denmark was the closest competitor in butter, with \$19,942. Cheese to the value of \$206,983 was imported, of which Holland sent \$107,209, United States \$53,961, Switzerland \$26,454, and France, Italy, and other countries lesser amounts.

Out of \$139,891 worth of leather bands and ropes, the United States sent \$81,971 and Great Britain \$46,846, and of hair ropes and bands, out of \$47,992, Germany sent \$24,453, and Great Britain \$22,004; of \$356,682 in dressed calf skins, patent leathers, goat and chamois skins, \$196,677 came from Germany, \$110,679 from the United States, and \$39,787 from France. Out of \$1,275,465 worth of boots, shoes, and slippers, the United States sent \$1,176,963, Spain \$83,381, France \$8,071, and Germany, Great Britain, Belgium, and Austria-Hungary very small amounts.

There was imported from the United States raw cotton to the value of \$2,813,471.

About one-half of an import of \$137,500 in rice came from India and \$41,000 from United States. Most of the grains were imported from the United States. Of \$191,217 of unmanufactured tobacco, there was imported from the United States \$154,658; Cuba, \$3,441; Turkey, \$2,204; and India, \$2,000. Of chewing tobacco, less than \$12,000, practically all came from the United States, as did also \$12,500 worth of cigarette tobacco. The bulk of the cigarettes, \$22,276 out of \$27,414, came from Cuba, as did also \$19,340 out of \$24,924 worth of cigars. Nearly all the sugar, \$99,385, came from the United States, as did also \$268,686 out of \$320,060 of wheat flour. The United States sent also over \$100,000 of cotton-seed oil and \$2,242,207 of building lumber. It sent also \$85,039 of barrels, casks, etc., \$332,893 of wood boxes, and \$300,000 worth of other wooden manufactures, not including furniture. The United States also sent nearly \$500,000 of all kinds of furniture, and Austria-Hungary about \$115,000.

The great bulk of copper, tin, and bronze, amounting to over \$1,750,000, came from the United States.

The great bulk of iron and steel was also from the United States. Among the principal items under this classification imported from that country were: Wire fencing, \$475,271; plows, \$270,564; iron and steel wire cable, \$124,864. Of iron piping, \$1,352,639, the \$197,404 worth was imported from Great Britain. From the United States came also iron and steel in sheets valued at \$533,479; steel rails, \$1,447,000; spikes, fish plates, nuts, bolts, etc., \$370,484.

Lime, cement, etc., were imported to the value of \$446,001, of which \$196,232 came from Germany, \$137,139 from Great Britain, and \$66,621 from the United States. There was imported from the United States coal to the value of \$1,405,952, and from Great Britain

to the value of \$468,575, out of a total importation of \$2,110,608. A little over \$750,000, out of something less than \$1,000,000 in value, of refined mineral oil, and crude oil to the value of \$901,622, came from the United States. Coke worth \$1,339,247 was imported; of this the United States sent \$785,192, Germany \$398,149, and Great Britain \$136,089.

Common bottles to the value of \$428,809 in all were imported, of which Germany sent \$252,636 and the United States \$163,654.

The bulk of the common glassware, \$105,205 out of \$216,686, was imported from the United States.

Under the heading of wines, liquors, and beverages, France sent brandy to the value of \$673,311, out of a total of \$918,981, only about one-seventh in the wood. Of bottled beer and cider, Spain sent \$64,300, the United States \$27,276, Great Britain \$19,158, and Germany \$11,027. Of a total import of wines in the wood of \$870,104, Spain sent \$496,731, France \$290,044, the United States \$51,552; and of the total, \$459,680, of wines in bottles (not including sparkling wines), Spain sent \$127,398, France \$174,422, Italy \$49,200. Of sparkling wines, the bulk came from France, \$139,014 out of \$153,952.

The value of the imports of agricultural and industrial machinery was \$9,443,547; of this amount imports from the United States amounted to \$6,054,132, from Great Britain \$1,785,295, from Germany \$1,154,976, and from Belgium \$248,674.

There was imported from the United States railway cars to the value of \$744,348 out of a total of \$907,097.

Under the heading of miscellaneous, some of the principal importations were: Lubricating oil, \$250,847; rubber machine bands, \$124,614; and rubber tubing, \$108,285, from the United States; musical instruments, from Germany \$197,616, and from the United States \$245,860; and perfumery, \$175,016, from France.

The five leading countries in the Mexican import trade were: United States, \$45,280,775; United Kingdom, \$9,897,204; Germany, \$8,568,765; France, \$6,178,645; Spain \$2,588,671. Compared with the preceding year, there was a loss in trade in the case of all of these countries. Expressed in percentages, it was as follows: United Kingdom, 39 per cent; Germany, 39 per cent; France, 38 per cent; Spain, 31 per cent; and the United States, 23 per cent.

The total imports of Cuba for the fiscal year ending June 30, 1909, were \$86,791,371. The value of the principal articles of import were as follows:

Cereals.....	\$11, 640, 991
Meats.....	9, 627, 128
Cotton and manufactures thereof.....	8, 023, 562
Iron and steel.....	4, 523, 952
Machinery.....	4, 108, 560
Manufactures.....	3, 724, 147

Food substances not otherwise classified	\$3, 660, 606
Vegetables	3, 568, 974
Vegetable fibers	2, 837, 486
Wood and manufactures thereof	2, 042, 161

About one-half of the cereals was imported from the United States, \$3,646,349 from Germany, \$1,919,005 from the United Kingdom, and \$1,072,243 from other European countries. Of meats, \$6,904,485 was from the United States and \$2,581,445 from other American countries. Of cotton and its manufactures there was imported from the United Kingdom \$3,438,196, from Germany \$1,677,077, from Spain \$1,215,668, and from France \$816,121.

The bulk of the iron and steel came from the United States, \$3,316,326, with the United Kingdom next in order, \$622,051. Of machinery, \$3,262,951 came from the United States and \$339,272 from the United Kingdom.

Of miscellaneous food substances the United States sent \$1,365,341 and other American countries \$2,074,879. Of vegetables the United States sent \$820,170, other American countries \$1,416,847, and Spain \$643,166. Of vegetable fibers the United Kingdom sent \$1,661,099, and other European and Asiatic countries \$697,830. Of food, oils, and liquors, Spain sent \$1,876,877, France \$303,597, and the United States \$276,028.

The five countries leading in the Cuban import trade were United States, \$44,612,242; United Kingdom, \$10,639,462; France, \$7,576,616; Spain, \$7,390,782; Germany, \$6,350,534.

The Costa Rican imports for the year 1909 amounted to \$6,109,938. The importation by articles for the year was as follows:

Cotton goods	\$693, 521
Flour	463, 573
Machinery	223, 747
Lard	157, 242
Drugs	119, 306
Railroad material	119, 146
Lumber	118, 057
Electrical material	104, 785
Canned goods	46, 137
Codfish	44, 942
Maize	44, 351
Fence wire	32, 736
Hardware	29, 434

In all of these articles, with but one exception, the United States led in the amount of the imports. The one exception was cotton goods, of which there was imported from England \$267,268 and from the United States \$213,176. According to the Costa Rican statistics the import of flour from the United States was valued at \$460,775; lard at \$152,726; machinery at \$164,027; railroad material at \$76,641; lumber at \$118,057 (the total importation); maize at

\$44,351 (total importation); codfish, \$36,872; electrical material at \$81,568; drugs, \$60,703; canned goods, \$25,466; fence wire, \$32,704 (practically the whole importation); hardware, \$21,125.

The five countries leading in the Costa Rican import trade were United States, \$3,376,350; United Kingdom, \$1,115,677; Germany, \$802,235; France, \$305,497; Spain, \$160,691. Compared with the preceding year, the United States increased its trade 29 per cent, and Germany 24 per cent. The trade with the United Kingdom decreased 13 per cent.

The total foreign trade of the ten Latin Republics in North America for the year 1909 amounted to \$489,841,712. Of this amount \$205,791,822 represented imports. The share of the United States in this trade was \$108,509,164; of the United Kingdom, \$27,603,821; of Germany, \$19,956,291; of France, \$15,859,527; of Belgium, \$1,364,899. The percentages of the trade were: United States, 52.7; United Kingdom, 13.4; Germany, 9.7; France, 7.7; and Belgium, 0.7.

The following table shows the imports into Latin America for the year 1909 from the United Kingdom, Germany, France, Belgium, and the United States:

Country.	United Kingdom.	Germany.	France.	Belgium.	United States.
Mexico.....	\$9,897,204	\$8,558,765	\$6,178,645	\$952,440	\$45,280,775
Guatemala.....	1,061,843	1,258,193	209,947	93,309	1,718,660
Salvador.....	1,438,614	482,342	285,170	104,550	1,344,316
Honduras.....	245,258	233,515	144,891	6,981	1,769,877
Nicaragua ^a	400,000	300,000	150,000	30,000	1,500,000
Costa Rica.....	1,115,677	802,235	305,497	97,759	3,376,350
Panama.....	1,762,411	914,756	297,352	108,320	4,996,627
Cuba.....	10,639,462	6,350,534	7,576,617	825,000	42,612,242
Dominican Republic.....	576,516	911,976	188,948	6,540	2,593,490
Haiti.....	466,836	134,075	522,460	.....	3,316,827
Argentine Republie.....	99,198,269	44,555,770	30,801,132	13,570,074	43,068,829
Bolivia.....	3,157,738	2,128,400	591,859	627,226	4,349,412
Brazil.....	48,241,287	28,007,001	18,610,398	7,280,007	22,265,534
Chile.....	31,842,746	22,436,421	5,663,495	2,751,774	9,601,084
Colombia.....	2,000,000	1,600,000	650,000	80,000	3,500,000
Ecuador.....	3,149,824	1,673,432	610,435	437,682	2,397,995
Paraguay.....	856,334	1,192,620	364,310	49,489	222,764
Peru.....	8,170,645	4,467,170	1,459,795	1,299,555	5,923,340
Uruguay.....	11,900,000	6,200,000	4,250,000	2,850,000	4,100,000
Venezuela.....	2,997,940	2,275,612	298,683	25,762	2,854,004
North American Republics.....	27,603,821	19,956,391	15,859,527	2,224,899	108,509,164
South American Republics.....	211,514,783	114,536,046	63,300,107	28,971,569	98,289,962
Total.....	239,118,604	134,492,437	79,159,634	31,196,468	206,799,126

^a Estimate.

The total exports of Latin America for the year 1909 amounted to nearly \$2,145,000,000. This was nearly \$149,000,000 greater than the trade for the preceding year.

The export trade of the United States for the same year amounted to \$1,728,203,271. The value of the exports from Latin America therefore exceeded those from the United States by \$416,483,032. The great bulk of this trade can be divided broadly into four classes: I. Products of stock raising; II. Agricultural products; III. Forest

products; IV. Mine products. Exact statistics under these classifications are not available, but the following estimate is approximately correct: Agricultural products, \$900,000,000; stock-raising products, \$400,000,000; mine products, \$400,000,000; forest products, \$200,000,000.

The total amount of the exports of the Argentine Republic for the year was \$700,106,623. Of this amount \$153,548,356 may be classed as stock-raising products; \$230,503,996 as agricultural products; \$8,927,362 as forest products; and \$742,020 as mine products.

The value of live animals exported was \$4,992,726; frozen beef, \$20,943,549; frozen mutton, \$5,319,612; hides and skins, \$40,165,681; wool, \$59,931,751; tallow, \$7,573,230. There were also considerable exports of chilled beef, jerked beef, beef extract, beef meal, and butter.

Among the principal agricultural exports from the Argentine Republic were: Wheat, \$106,038,940; maize, \$58,374,430; linseed, \$43,713,358; oats, \$10,115,161; other exports wheat flour, bran, etc.

The principal forest export was quebracho extract, \$4,226,233; logs, \$4,380,033. The principal mine product was copper, \$595,307.

The exports from Bolivia were principally from the mines and forests. For the year the tin export was worth over \$14,000,000, and the silver export \$3,350,000. Besides these two metals copper, bismuth, and wolfram were exported. The principal forest product was rubber, worth about \$4,200,000. The coca export amounted to \$117,072.

In Brazil the principal stock-raising products were hides, worth \$8,812,600; and skins, worth \$4,709,492.

The mine production of Brazil was about \$5,000,000, of which about one-half was gold, and about \$1,800,000 manganese, and the remainder monazite sand and precious stones.

The great bulk of Brazilian exports were agricultural and forest. In agricultural exports coffee led, \$161,922,682; then, in order, came cacao, \$7,739,870; tobacco, \$6,443,681; sugar, \$3,247,504; cotton, \$2,861,662; bran, \$1,210,572; cotton seeds, \$711,401.

The principal forest product was rubber, \$91,578,388; yerba maté, to the value of \$8,025,333; and Brazil nuts, to the value of \$1,493,712, were exported.

The total export of products from Chile for the year 1909 amounted to \$110,314,767. The great bulk of this was mineral products—\$86,949,963. The value of all vegetable products, agricultural and forest, was \$11,171,568, and of animal products, \$8,340,730. The following shows the mineral export of Chile for the year:

Nitrate	quintals..	21, 015, 125
Copper	kilograms..	42, 726, 145
Coal	tons..	898, 971
Iodine	kilograms..	474, 200

Borax.....	kilograms..	32, 218, 042
Common salt.....	quintals..	20, 463
Silver.....	grams..	44, 282, 531
Gold.....	do.....	1, 268, 414
Sulphur.....	kilograms..	4, 507, 707
Sulphuric acid.....	do.....	1, 415, 000

The unit of quantity for coal is the metric ton (2,204.6 pounds), and for nitrate and salt the metric quintal (220.4 pounds). For the other articles the unit given is the kilogram (2.2 pounds), except for the gold and silver, which is given in grams (15.43 grains).

Exports from Colombia are estimated as follows: Agriculture, \$8,000,000; stock raising, \$2,000,000; forest, \$2,000,000; and mine, \$2,500,000.

In Costa Rica the principal stock-raising export was hides, \$105,020. Bananas and coffee furnish the bulk of the agricultural exports, the former \$4,355,045 and the latter \$2,639,873. Cacao was exported to the value of nearly \$56,000. The rubber export was about \$72,000, and the fine woods (cedar, mahogany, and rosewood) about \$30,000.

The principal stock-raising export from Cuba was hides and skins—something over \$1,000,000. In agricultural exports sugar led, with \$70,996,726. Next in order came tobacco—leaf tobacco, \$20,072,681; manufactured tobacco, \$12,938,624. The fresh fruit export amounted to over \$2,300,000.

The exports of the Dominican Republic were mainly agricultural, the stock-raising products amounting to about \$166,000, and the forest products (principally furniture and dyewoods) about \$173,000. The value of sugar exported was \$3,304,931; of cacao, \$2,759,191; of leaf tobacco, \$1,239,486; of coffee, \$128,202; and of bananas, \$125,766.

The principal agricultural export of Ecuador was cacao, \$7,261,309. The value of the coffee exported was \$528,474, and of fruits \$63,668. In forest products the principal export was ivory nuts, \$1,530,991, and rubber, \$770,234. The hide export amounted to \$226,398, and the Panama hats to \$1,158,573.

Guatemala: The coffee export of this country amounted to \$5,697,183; bananas, \$200,474; sugar, \$186,788. Hides and skins were exported to the value of \$290,783, and rubber to the value of \$158,573. Furniture woods and chicle together amounted to \$105,000.

The estimates of exports from Haiti were: Agriculture, \$8,500,000; forest, \$1,000,000; stock raising, \$150,000.

The agricultural products of Honduras exported amounted to about \$1,100,000, the forest products to about \$250,000, mine products to \$662,957, and stock-raising products to about \$117,000.

Mexico, like Bolivia and Chile, is principally a mining state. The value of the mine exports for the year ending June 30, 1909, was \$72,136,413. Of this nearly \$20,000,000 was gold, nearly \$37,000,000

silver, and over \$10,000,000 copper. The principal agricultural exports were: Henequen, \$11,942,350; coffee, \$6,252,163; itxle, \$1,435,957; and beans over \$1,000,000. The rubber export was \$4,359,713; guayule, \$2,370,537; furniture woods, over \$1,000,000. Mexico exported cattle to the value of \$1,847,983; goat skins, \$1,832,645; and cattle hides, \$2,351,045.

The estimates of exports from Nicaragua are: Agriculture, \$836,000; stock raising, \$737,000; forest, \$683,000; mine, \$1,000,000.

The estimates of exports from Panama are: Agriculture, \$850,000; forest, \$500,000; stock raising, \$120,000; mine, \$25,000.

The stock-raising exports from Paraguay for the year were \$1,546,837, and the estimated value of the forest export was \$1,300,000.

The principal agricultural exports of Salvador were: Coffee, \$4,590,705; indigo, \$257,247; and sugar, \$136,575. The hides exported were worth about \$452,000, the balsam export was \$103,681, and the mine exports \$1,100,839.

The stock-raising exports of Uruguay amounted to \$44,763,824. It is estimated that the agricultural exports were about \$2,000,000 and the forest exports about \$800,000.

From Venezuela the principal agricultural exports were: Coffee, \$6,054,422; cacao, \$3,624,815. The export of hides was \$929,497; of goatskins, \$295,125; and of cattle, \$209,848. The balata export amounted to \$1,345,587, and rubber to nearly a half a million.

The following table shows the Latin-American exports to five of the leading commercial countries—United Kingdom, Germany, France, Belgium, and the United States:

Country.	United Kingdom.	Germany.	France.	Belgium.	United States.
Mexico.....	\$12,066,054	\$6,429,506	\$5,504,985	\$2,903,474	\$86,472,343
Guatemala.....	105,807	3,939,207	713,765		1,776,676
Salvador.....	449,894	1,061,316	1,629,063	6,038	1,879,454
Honduras.....	12,191	71,793	1,428		1,834,565
Nicaragua ^a	400,000	700,000	250,000	20,000	1,100,000
Costa Rica.....	2,944,947	166,686	117,298		4,802,254
Panama.....	142,174	86,972	3,770		1,264,906
Cuba.....	4,959,040	4,484,290	1,296,447	^a 225,000	101,457,343
Dominican Republic.....	76,915	2,190,127	924,015		4,764,194
Haiti ^a	1,200,000	1,750,000	5,400,000	650,000	700,000
Argentine Republic.....	80,745,066	41,353,332	38,996,004	41,306,799	26,066,790
Bolivia ^a	1,620,000	130,000	140,000	4,000	11,000
Brazil.....	49,832,180	48,130,450	26,514,120	6,492,082	123,817,298
Chile.....	44,928,425	23,841,981	5,216,909	2,888,440	19,649,707
Colombia ^a	2,100,000	1,100,000	1,600,000	80,000	7,400,000
Ecuador.....	1,250,734	1,577,999	4,460,807	16,000	3,416,146
Paraguay.....	^a 1,800,000	971,799	80,996	182,397	1,434
Peru.....	12,169,565	1,834,785	2,313,790	1,342,880	6,835,530
Uruguay.....	3,363,000	5,301,000	7,330,000	6,327,000	5,658,000
Venezuela.....	1,524,201	893,415	4,953,529	45,288	7,446,205
North American Republics.....	22,357,022	20,879,897	15,840,771	3,804,512	206,052,535
South American Republics.....	199,333,171	125,134,761	91,606,065	58,682,066	200,302,110
Total.....	221,690,193	146,014,658	107,446,836	62,486,578	408,354,645

^a Estimates.

All of the figures in this résumé of Latin-American trade are compiled from Latin-American statistical reports, or from other

trustworthy Latin-American sources. In the matter of exports and imports they do not agree exactly with the corresponding reports of other countries. For instance, the exports from Argentina to the United Kingdom, as given above, do not agree with the British statistical reports of imports from Argentina.

These variances are particularly notable in the case of the United States. The imports and exports from Latin-American countries to the United States, as given from figures derived from the reports of these countries, do not agree with the United States Statistical Bureau's figures. It must not be assumed that in either case there is an error in collecting or in compiling and stating the facts. The variances in most cases are due to different classifications, different values given at ports of departure and at ports of entry, and to the failure to "follow through." The last is often the principal cause of discrepancy. For instance, goods billed from New York to an agent in Mollendo, Peru, but in reality intended for La Paz, Bolivia, may be entered in the United States reports as an export to Peru, but in the Bolivian reports they appear as a Bolivian import from the United States. So, likewise, Bolivian or Peruvian rubber shipped down the Amazon, and coming to the United States *via* Para may appear in the United States reports as an import from Brazil, while in the Bolivian and Peruvian statistics it appears as an export to the United States.

A constant source of discrepancy is "on order" shipments. Staples like grain or coffee are sent to London, Hamburg, etc., to be from there "ordered" to the most favorable market.

The following table gives the United States figures of its trade with Latin America for the year 1909:

Country.	1909.	
	Imports.	Exports.
Mexico.....	\$52,578,454	\$53,512,947
Guatemala.....	3,121,651	1,752,696
Salvador.....	924,823	1,470,914
Honduras.....	1,982,361	1,636,678
Nicaragua.....	1,097,922	1,475,162
Costa Rica.....	3,361,838	2,841,343
Panama.....	1,973,001	19,914,196
Cuba.....	107,334,716	48,217,689
Dominican Republic.....	2,767,338	2,500,959
Haiti.....	681,919	4,443,988
Argentine Republic.....	27,080,231	36,287,201
Bolivia.....	223	895,838
Brazil.....	117,062,725	19,765,836
Chile.....	16,700,994	6,787,537
Colombia.....	7,303,503	3,472,632
Ecuador.....	2,832,819	2,202,849
Paraguay.....	19,238	69,674
Peru.....	7,164,364	4,371,088
Uruguay.....	5,708,814	4,016,105
Venezuela.....	7,772,851	2,529,669
Total.....	367,469,785	217,265,001

A COMPARATIVE VIEW OF LATIN-AMERICAN COMMERCE.

The development of Latin-American commerce in the last fifteen or twenty years has been so wonderfully great as on the whole to have exceeded the development of any other part of the world. The facts of this great development are not as broadly known and appreciated as they should be. This immense growth in commerce has been one constant increase in arithmetical proportion. Great international panics and business disturbances have had less effect in Latin America than in any other part of the world.

This phenomenal growth of Latin-American foreign trade, as illustrated by the figures for twelve years ago and for now, is shown in the following tables. The first, for Latin America, includes all 20 Republics; the second, the 9 Republics in North America (Panama, having been a part of Colombia in 1897, must for the purposes of this table be counted in with South America); and third, South America.

LATIN AMERICA.

	Imports.	Exports.	Total.
Foreign trade, 1909.....	\$895,679,943	\$1,249,005,360	\$2,144,685,303
Foreign trade, 1897.....	\$415,079,562	\$495,342,937	\$910,422,499
Increase.....	\$480,600,381	\$753,662,423	\$1,234,262,804
Percentage of increase.....	113	152	135

LATIN REPUBLICS IN NORTH AMERICA (EXCLUDING PANAMA).

	Imports.	Exports.	Total.
Foreign trade, 1909.....	\$197,035,514	\$282,547,415	\$479,582,929
Foreign trade, 1897.....	\$80,848,144	\$116,711,169	\$197,559,313
Increase.....	\$116,187,370	\$165,836,246	\$282,023,616
Percentage of increase.....	143	142	142

SOUTH AMERICA (INCLUDING PANAMA).

	Imports.	Exports.	Total.
Foreign trade, 1909.....	\$698,644,429	\$966,457,945	\$1,665,102,374
Foreign trade, 1897.....	\$334,231,418	\$376,631,768	\$712,863,186
Increase.....	\$364,413,011	\$587,826,177	\$952,239,188
Percentage of increase.....	109	155	133

The increase of trade in all the countries has been exceedingly great. The following tables show the increase in trade for the twelve years in three of the Republics:

ARGENTINE REPUBLIC.

	Imports.	Exports.	Total.
Trade for 1909.....	\$302,756,095	\$397,350,528	\$700,106,623
Average trade for three years, 1896-1898.....	\$105,960,667	\$117,266,667	\$223,227,334
Increase.....	\$196,795,428	\$280,083,861	\$476,879,289
Percentage of increase.....	186	238	213

MEXICO.

	Imports.	Exports.	Total.
Trade for 1909.....	\$78,266,513	\$115,550,309	\$193,816,822
Average trade for three years, 1896-1898.....	\$45,558,927	\$63,132,929	\$108,691,856
Increase.....	\$32,707,586	\$52,417,380	\$85,124,966
Percentage of increase.....	72	83	78

CUBA.

	Imports.	Exports.	Total.
Trade for 1909.....	\$86,791,371	\$117,563,867	\$204,355,238
Average trade for three years, 1896-7-1898.....	\$11,253,063	\$17,931,502	\$29,184,565
Increase.....	\$75,538,308	\$99,632,365	\$175,170,673
Percentage of increase.....	671	556	600

For the year 1909 the exports from the 20 Latin-American Republics amounted to nearly one billion and a quarter dollars, United States gold. This ranks Latin America as the greatest exporter of raw material of any portion of the world. The export value of this material, even when matched against the value of the exports of other countries, which are largely manufactures, places it next after the United Kingdom, the United States, and Germany. More than one-half (\$705,682,000) of the exports of the 20 Republics were from two of them, the Argentine Republic and Brazil, and 84 per cent (\$1,049,111,000) from five, Argentine Republic, Brazil, Cuba, Mexico, and Chile.

In the value of its imports Latin America is exceeded, in addition to the countries mentioned above, by the Netherlands and France. In all of these countries the total of imports consists largely of raw materials, while in Latin America the imports are almost entirely of highly manufactured products. This is to be expected since Europe is, and will remain for many decades, the great storehouse of acquired wealth, the center of lavish expenditure, and the principal manufacturing section of the world.

The following table gives the value of the imports and exports of the principal countries of Europe, the United States, Canada, China, and Japan, as compared with the 20 Latin American Republics:

	Imports.	Exports.	Total.
United Kingdom.....	\$2,666,875,000	\$1,871,895,000	\$4,558,770,000
Germany.....	2,019,180,000	1,642,365,000	3,661,545,000
United States.....	1,475,693,000	1,728,203,000	3,203,896,000
France.....	1,194,525,000	1,102,330,000	2,296,855,000
Latin America.....	895,680,000	1,249,005,000	2,144,685,000
Netherlands (1908).....	1,129,577,000	872,982,000	2,002,559,000
Belgium.....	681,980,000	519,380,000	1,201,360,000
Austria-Hungary.....	579,385,000	481,965,000	1,061,370,000
Italy.....	615,825,000	366,745,000	982,570,000
Canada.....	356,140,000	276,615,000	632,755,000
China (1908).....	254,456,000	178,446,000	432,902,000
Japan.....	200,665,000	209,255,000	409,920,000

THE ESPERANTO CONGRESS IN WASHINGTON

THE International Congress of Esperantists held its sixth meeting this year in Washington, D. C., from August 14 to 20. The programme was exceptionally good, and both members and delegates expressed great satisfaction at their results in extending the propaganda of this auxiliary language. The social functions of the Congress were also highly pleasing. It stands to reason that if a language such as this is to live, it must be a really useful, day-to-day means of communication between busy, active individuals who would otherwise meet with no common plane of understanding.

The social side of the Congress is therefore quite as essential as its formal side. Washington offers exceptionally pleasant opportunities for these social functions. One afternoon the members went in a body to the Department of the Treasury; on another they formed an excursion down the Potomac to Mount Vernon, the home of GEORGE WASHINGTON; and on a third they journeyed up that river to the beautiful Great Falls. A baseball game was attended, and a special musicale was arranged on the grounds of the United States Marine Barracks. The evenings also were devoted to social entertainments. SHAKESPEARE'S "As You Like It," translated into Esperanto by Dr. IVY KELLERMAN REED, was presented in the open air by a professional company trained in Esperanto, while the concluding meeting for the Congress was a grand ball.

Latin America was well represented at this sixth annual meeting. In fact, it is a matter of congratulation that at this gathering there were eleven official representatives sent by governments, the highest number hitherto having been but three. From Latin America the following members were in attendance: NEGRON SANJORGIO and ROBERT GRAHAM, from Porto Rico; ANSELMO MORIN, FELIX VILLALOBOS, and FERNANDO BERMUDEZ, from Mexico; JOÃO BAPTISTA MELLO-SOUZA and C. QUERINO DE OLIVEIRA from Brazil; and RAFAEL MUÑOZ with two sons from Uruguay.

JOHN BARRETT, the Director of the International Bureau of the American Republics and President of the Esperanto Association of North America, had intended to give a reception in honor of members of the Congress, to which he had invited also the chief members of Washington society, but owing to the death of President PEDRO MONTT of Chile, on his arrival in Germany, this reception was of course immediately canceled.



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THE SPECIAL DELEGATES OF BRAZIL AND URUGUAY TO THE ESPERANTO CONGRESS.

The Sixth International Esperanto Congress held in Washington during August, 1910, had a better representation of foreign delegates than any previous meeting. Latin America played an important part in the list of members, Mexico, Guatemala, Honduras, Costa Rica, Uruguay, and Brazil having appointed delegates. Señor Don Rafael Muñoz, with his two sons, Señor Alberto and Señor Henrique Muñoz, came especially from Montevideo, Uruguay, and Senhor João Bautista Mello-Sousa with Dr. C. Querino de Oliveira came especially from Rio de Janeiro, Brazil. Mr. Edwin C. Reed, the secretary of the Congress, was delegated to act for the Esperanto Society of Peru. Their photographs were taken at the base of the beautiful monument to the Polish hero Kosciuszko, in Lafayette Square, Washington.



Courtesy of La Prensa, Buenos Aires.

FRONT VIEW OF THE PALACE OF JUSTICE ON CALLE LAVALLE, BUENOS AIRES.

THE PAN-AMERICAN CONFERENCE

THE Fourth Pan-American Conference, which met in Buenos Aires on July 10 and adjourned on August 25, 1910, was attended by delegates from 20 American Republics: Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Salvador, United States, Uruguay, and Venezuela. In a future number of the BULLETIN a synopsis of the Proceedings of the Conference will be published.

The first public session was held on July 12, on which date the President of the Conference, Dr. VICTORIANO DE LA PLAZA, Minister of Foreign Relations of Argentina, delivered a very able address of inauguration and declared in the name of His Excellency, the President of the Republic, that the Conference was inaugurated.

Fourteen standing committees were appointed as follows:

First Committee, Topic I.—Rules and Credentials—five members.

President: Señor General CARLOS GARCÍA VÉLEZ (Cuba).

Secretary: Señor ANTONIO RAMOS PEDRUEZA (Mexico).

Señores ESTANISLAO S. ZEBALLOS (Argentina), HERCULANO DE FREITAS (Brazil), BELTRÁN MATHIEU (Chile).

Second Committee, Topics II, V, XIII, and XIV.—Commemoration of the Independence of the American Republics, etc.

President: Señor EUGENIO LARRABURE Y UNÁNUE (Peru).

Secretary: Señor CESAR ZUMETA (Venezuela).

Señores: HENRY WHITE (United States), EMILIO BELLO CODECIDO (Chile), ROBERTO ANCÍZAR (Colombia), VICTORIANO SALADO ALVAREZ (Mexico), TEODOSIO GONZÁLEZ (Paraguay).

Third Committee, Topic III.—Reports or Memorials Presented as to the Action of the Governments Upon the Resolutions of the Third Conference—one member for each delegation.

President: Señor MIGUEL CRUCHAGA TOCORNAL (Chile).

Secretary: Señor GONZALO DE QUESADA Y ARÓSTEGUI (Cuba).

Señores: HENRY WHITE (United States), MANUEL AUGUSTO MONTES DE OCA (Argentina), OLAVO BILAC (Brazil), ROBERTO ANCÍZAR (Colombia), ALFREDO VOLIO (Costa Rica), AMÉRICO LUGO (Dominican Republic), ALEJANDRO CÁRDENAS (Ecuador), MANUEL ARROYO (Guatemala), CONSTANTINO FOCHARD (Haiti), LUIS LAZO ARRIAGA (Honduras), LUIS PÉREZ VERDÍA (Mexico), MANUEL PÉREZ ALONSO (Nicaragua), BELISARIO PORRAS (Panama), JOSÉ MONTERO (Paraguay), EUGENIO LARRABURE Y UNÁNUE (Peru), FRANCISCO MARTÍNEZ SUÁREZ (Salvador), CARLOS M. DE PENA (Uruguay), MANUEL DÍAZ RODRÍGUEZ (Venezuela).

Fourth Committee, Topic IV.—Report of the Director of the International Bureau of the American Republics—one member for each delegation.

President: Señor ANÍBAL CRUZ DÍAZ (Chile).

Secretary: Señor ANTONIO M. RODRÍGUEZ (Uruguay).

Señores: PAUL SAMUEL REINSCH (United States), MANUEL AUGUSTO MONTES DE OCA (Argentina), GÂSTAO DA CUNHA (Brazil), ROBERTO ANCÍZAR (Colombia), ALFREDO VOLIO (Costa Rica), CARLOS GARCÍA VÉLEZ (Cuba), AMÉRICO LUGO (Dominican Republic), ALEJANDRO CÁRDENAS (Ecuador), LUIS TOLEDO HERRARTE (Guatemala), CONSTANTINO FOCHARD (Haiti), LUIS LAZO ARRIAGA (Honduras), ANTONIO RAMOS PEDRUEZA (Mexico), MANUEL PÉREZ ALONSO (Nicaragua), BELISARIO PORRAS (Panama), JOSÉ MONTERO (Paraguay), CARLOS ALVAREZ CALDERÓN (Peru), FREDERICO MEJÍA (Salvador), CESAR ZUMETA (Venezuela).



Courtesy of La Nación, Buenos Aires.

SESSION HALL OF THE PALACE OF JUSTICE, BUENOS AIRES, WHERE THE
PAN-AMERICAN CONFERENCE MET.

Fifth Committee, Topic VI.—Pan-American Railway—one member for each delegation.

President: Señor FREDERICO MEJÍA (Salvador).

Secretary: Señor JUAN JOSÉ AMÉZAGA (Uruguay).

Señores: JOHN BASSET MOORE (United States), ESTANISLAO S. ZEBALLOS (Argentina), HERCULANO DE FREITAS (Brazil), BELTRÁN MATHIEU (Chile), ROBERTO ANCÍZAR (Colombia), ALFREDO VOLIO (Costa Rica), ANTONIO GONZALO PÉREZ (Cuba), AMÉRICO LUGO (Dominican Republic), ALEJANDRO CÁRDENAS (Ecuador), LUIS TOLEDO HERRARTE (Guatemala), CONSTANTINO FOUCARD (Haiti), LUIS ARRIAGA (Honduras), VICTORIANO SALADO ALVAREZ (Mexico), MANUEL PÉREZ ALONSO (Nicaragua), BELISARIO PORRAS (Panama), CARLOS ALVAREZ CALDERÓN (Peru), JUAN JOSÉ AMÉZAGA (Uruguay), CESAR ZUMETA (Venezuela).

Sixth Committee, Topic VII.—Steamship Communications—seven members.

President: Señor LEWIS NIXON (United States).

Secretary: Señor JOSÉ ANTONIO DE LAVALLE Y PARDO (Peru).

Señores: JOSÉ L. ALMEIDA NOGUEIRA (Brazil), ANÍBAL CRUZ DÍAZ (Chile), RAFAEL MONTORO Y VALDÉS (Cuba), VICTORIANO SALADO ALVAREZ (Mexico), GONZALO RAMÍREZ (Uruguay).

Seventh Committee, Topic VIII.—Uniformity in Consular Documents, Census and Commercial Statistics—one member for each delegation.

President: Señor RAFAEL MONTORO Y VALDÉS (Cuba).

Secretary: Señor MANUEL ARROYO (Guatemala).

Señores: ENOCH H. CROWDER (United States), JOSÉ A. TERRY (Argentina), HERCULANO DE FREITAS (Brazil), MIGUEL CRUCHAGA TONCORNAL (Chile), ROBERTO ANCÍZAR (Colombia), ALFREDO VOLIO (Costa Rica), AMÉRICO LUGO (Dominican Republic), ALEJANDRO CÁRDENAS (Ecuador), CONSTANTINO FOUCARD (Haiti), LUIS LAZO ARRIAGA (Honduras), ANTONIO RAMOS PEDRUEZA (Mexico), MANUEL PÉREZ ALONSO (Nicaragua), BELISARIO PORRAS (Panama), TEODOSIO GONZÁLEZ (Paraguay), JOSÉ ANTONIO DE LAVALLE Y PARDO (Peru), FRANCISCO MARTÍNEZ SUÁREZ (Salvador), CARLOS M. DE PENÁ (Uruguay), CESAR ZUMETA (Venezuela).

Eighth Committee, Topic IX.—Sanitary Police—one member for each delegation.

President: Señor CARLOS M. DE PENÁ (Uruguay).

Secretary: Señor ALEJANDRO ALVAREZ (Chile).

Señores: DAVID KINLEY (United States), CARLOS SALAS (Argentina), JOSÉ L. ALMEIDA NOGUEIRA (Brazil), ROBERTO ANCÍZAR (Colombia), ALFREDO VOLIO (Costa Rica), GONZALO DE QUESADA Y ARÓSTEGUI (Cuba), AMÉRICO LUGO (Dominican Republic), ALEJANDRO CÁRDENAS (Ecuador), MANUEL ARROYO (Guatemala), CONSTANTINO FOUCARD (Haiti), LUIS PÉREZ VERDÍA (Mexico), MANUEL PÉREZ ALONSO (Nicaragua), BELISARIO PORRAS (Panama), JOSÉ MONTERO (Paraguay), FRANCISCO MARTÍNEZ SUÁREZ (Salvador), MANUEL DÍAZ RODRÍGUEZ (Venezuela).

Ninth Committee, Topic X.—Patents and Trade-Marks—seven members.

President: Señor ANTONIO RAMOS PEDRUEZA (Mexico).

Secretary: Señor ANTONIO GONZALO PÉREZ (Cuba).

Señores: CHARLES LAMAR QUINTERO (United States), ESTANISLAO S. ZEBALLOS (Argentina), JOSÉ L. ALMEIDA NOGUEIRA (Brazil), EMILIO BELLO CODECIDO (Chile), JUAN JOSÉ AMÉZAGA (Uruguay).

Tenth Committee, For the Study of a Convention between the American Republics Relative to Intellectual and Literary Property, and Topic XII (Interchange of Professors and Students)—seven members.

President: Señor LUIS PÉREZ VERDÍA (Mexico).

Secretary: Señor ALFREDO VOLIO (Costa Rica).

Señores: BERNARD MOSES (United States), EDUARDO L. BIDAÚ (Argentina), OLAVO BILAC (Brazil), ALEJANDRO ALVAREZ (Chile), EUGENIO LARRABURE Y UNÁNUE (Peru).

Eleventh Committee, Topic XI.—Pecuniary Claims—seven members.

President: Señor GONZALO RAMÍREZ (Uruguay).

Secretary: Señor MARIO ESTRADA (Guatemala).

Señores: JOHN BASSET MOORE (United States), EDUARDO L. BIDAÚ (Argentina), GASTÃO DA CUNHA (Brazil), AMÉRICO LUGO (Dominican Republic), VICTORIANO SALADO ALVAREZ (Mexico).



Courtesy of *La Prensa*, Buenos Aires.

THE FOURTH PAN-AMERICAN CONFERENCE IN SESSION IN THE PALACE OF JUSTICE, BUENOS AIRES.

Twelfth Committee, Topic XV.—Future Conferences—one member for each delegation.

President: Señor VICTORIANO SALADO ALVAREZ (Mexico).

Secretary: Señor LUIS LAZO ARRIAGA (Honduras).

Señores CHARLES LAMAR QUINTERO (United States), MANUEL AUGUSTO MONTES DE OCA (Argentina), GASTAO DA CUNHA (Brazil), ANÍBAL CRUZ DIAZ (Chile), ROBERTO ANCÍZAR (Colombia), ALFREDO VOLIO (Costa Rica), CARLOS GARCIA VÉLEZ (Cuba), AMERICO LUGO (Dominican Republic), ALEJANDRO CÁRDENAS (Ecuador), LUIS TOLEDO HERRARTE (Guatemala), CONSTANTINO FOUCARD (Haiti), MANUEL PÉREZ ALONSO (Nicaragua), BELISARIO PORRAS (Panama), JOSÉ IRALA (Paraguay), CARLOS ALVAREZ CALDERÓN (Peru), FREDERICO MEJÍA (Salvador), ANTONIO M. RODRIGUEZ (Uruguay), MANUEL DIAZ RODRIGUEZ (Venezuela).

Thirteenth Committee, Publications—five members.

President: JOSÉ M. CARBONELL (Cuba).

Secretary: LUIS PÉREZ VERDÍA (Mexico).

Señores PAUL SAMUEL REINSCH (United States), CARLOS RODRIGUEZ LARRETA (Argentina), OLAVO BILAC (Brazil).

Fourteenth Committee, The General Good—five members.

President: Señor JOSÉ ANTONIO DE LAVALLE Y PARDO (Peru).

Secretary: Señor ANTONIO M. RODRÍGUEZ (Uruguay).

Señores BERNARD MOSES (United States), DOMICIO DE GAMA (Brazil), BELTRÁN MATHIEU (Chile).

The committees met twice each week during the session of the conference.

The meeting place of the conference was the building, not yet finished, intended as the Palace of Justice. For the construction of this edifice there was appropriated 8,000,000 pesos national currency (\$3,520,000 gold) and for furniture and fittings, 2,000,000 pesos (\$880,000 gold).

The session hall in which the conference met is on the ground floor fronting on Lavalle street. The hall is of large size, rectangular in shape, finished in simple but severe and elegant taste. A row of arches, 20 in number, inclose the hall proper. These arches were hung with immense curtains while from the frieze projected the flags of all the countries represented at the conference. The desks and chairs were of mahogany. The former, intended for the use of the several delegations, extended in three rows in front of and to the right and left of the presiding officer's desk. The chairs were covered with red morocco leather. A handsome Russian leather pad with silver monogram covered each desk. Surrounding the session hall were a number of conversation and cloak galleries with a handsome buffet for the use of the delegates. The International Bureau of the American Republics had an especial apartment in one of the audience salons for the judges, most handsomely furnished with everything indispensable for the use of the representation of the Bureau.

There were rooms and posts set apart for the newspapers, stenographers, and translators as well as for the telegraph and telephone operators.

Under the supervision of the Secretary-General, in whose charge and that of his assistants was everything connected with the conference, there was arranged a section of publication, an administrative section, a section of protocols, and a section of proceedings.



Courtesy of La Nación, Buenos Aires.

VISIT OF PRESIDENT FIGUEROA ALCORTA, OF ARGENTINA, TO THE PALACE OF JUSTICE WHERE THE SESSIONS OF THE FOURTH PAN-AMERICAN CONFERENCE WERE HELD.

1. President Figueroa Alcorta. 2. Chief Justice (President of the Supreme Court) Dr. Antonio Bernuero, Chairman of the Conference. 3. Dr. E. Ramos Mejía, Minister of Agriculture of Argentina. 4. Dr. Victorino de la Plaza, Minister of Foreign Relations of Argentina. 5. Dr. Epifanio Porcila, Argentine Minister to the United States of America and Secretary-General of the Conference. 6. Sr. Don Adolfo J. Uguiza, Attaché of the Secretary's Staff. 7. Dr. Arturo L. Dominguez, Secretary to the Conference. 8. Col. Rafael de Oliveira Cesar Aid to the President.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO AUGUST 1, 1910.

Title.	Date of report.	Author.
ARGENTINA.		
Maize exports from Argentina.....	1910. Mar. 4	R. M. Bartleman, Consul-General, Buenos Aires.
Argentine commerce for 1909.....	Mar. 10	Do.
Argentine treasury bulletin.....	Mar. 17	Do.
Irrigation in Argentina; opening of works on Nequen River....	Mar. 18	Do.
Movement of vessels in port of Buenos Aires for 1909.....	Mar. 21	Do.
Opening of Trans-Andine tunnel to through railway traffic.....	Mar. 23	Do.
New electric power installation at Bahia Blanca.....	Mar. 24	Do.
Cotton culture in Argentina.....	Mar. 28	Do.
Argentine live stock.....	Apr. 2	Do.
Completion of Trans-Andine tunnel.....	Apr. 5	Do.
Construction of new seaport at Samborombon Bay.....	Apr. 9	Do.
Extension of time for bids for construction of ports at Mar del Plata and Quequen Grande.	Apr. 12	Do.
Argentine provincial currency.....	Apr. 14	Do.
Success of petroleum as combustible fuel.....	Apr. 15	Do.
Agricultural and pastoral census of Argentina.....	Apr. 18	Do.
Trade notes: Population of Rosario. Laying of first section of new cable to Europe. New English land company capitalized at \$973,300 formed in London. Argentine mutton to go to Switzerland. First Chilean passenger train passed through Trans-Andine tunnel on April 17. Opening of Southern Railway's branch line between General La Madrid and Pringles to take place May 1, 1910. Pacific Railway and Central Cordoba extension employing over 1,300 workmen on land to be reclaimed from the river Plate. Central Argentine Railway to electrify suburban service. Great Southern Railway to submit plan for elevated railway in Buenos Aires. Report of National Land Office on development of sugar industry in Province of Tucuman. Argentine railways carried 737 new thrashing machines during past season. Proportion of Argentina's trade in electrical goods.	Apr. 28	C. L. Chandler, Vice-Consul General, Buenos Aires.
Extension of time for construction of ports at Mar del Plata and Quequen Grande.	Apr. 29	R. M. Bartleman, Consul General, Buenos Aires.
Argentine steamship connections with Europe.....	May 2	Do.
Argentine Chamber of Commerce organized at Paris.....	May 4	Do.
Message of Argentine President to Congress.....	May 6	Do.
Opening of modern hotel in Rosario.....	May 11	Henry P. Coffin, Consul, Rosario.
Estimates of Argentine maize crop for 1909-10.....	May 12	R. M. Bartleman, Consul-General, Buenos Aires.
Automobile exposition in Rosario.....	May 13	Henry P. Coffin, Consul, Rosario.
Electric lighting of Buenos Aires at the Centenary Celebration..	May 17	R. M. Bartleman, Consul-General, Buenos Aires.
Prospective opening of direct cable from Argentina to Europe..	May 18	Do.
Trade notes: Decree that all tins for foodstuffs to be considered dangerous to health if they contain more than 1 per cent of lead, etc. Coal discovered at depth of 606 meters in Department of Las Heras in Province of Mendoza thought to be same as better class of Chilean coals. Two hundred and forty-four new schools opened in Province of Buenos Aires in 1909. Only 25 per cent of that Province now illiterate. Four hundred and ninety-three kilometers of telegraph lines opened in 1909. Inspection tax on matté now repealed. Cost of farming lands in Argentina rapidly rising. Polish colonies on the upper Uruguay River troubled with ants. Exports of butter in 1909. Great demand for eggs in Buenos Aires.	May 25	Do.
Bulletin of Finance of Argentina.....	June 2	Do.
Opening of direct cable to Europe.....	June 3	Do.
BRAZIL.		
Correction of report on foreign commerce.....	Mar. 19	J. J. Slechta, Vice-Consul-General, Rio de Janeiro.
Brazilian market for firearms.....	Mar. 21	Do.
Cotton growing in Brazil.....	Mar. 28	Do.
Declared exports for first quarter of 1910.....	Apr. 1	Do.
Lumber trade of Brazil.....	Apr. 12	Geo. E. Anderson, Consul-General, Rio de Janeiro.

REPORTS RECEIVED TO AUGUST 1, 1910--Continued.

Title.	Date of report.	Author.
BRAZIL--continued.		
Wireless telegraph in Brazil.....	1910. Apr. 12	Geo. E. Anderson, Consul-General, Rio de Janeiro.
Dredging and draining enterprise at Rio de Janeiro.....	Apr. 14	Do.
War ship to be built by popular subscription.....	Apr. 15	Do.
Planos in Brazil.....	Apr. 27	Do.
Brazilian coal imports.....	Apr. 29	Do.
Railway construction in Brazil.....	May 4	Do.
Port works in Brazil.....	May 5	Do.
Brazil's postal savings-bank systems.....	May 7	Do.
Trade notes: Import and export trade for first three months of current year. Decrease of exports offset by high price of rubber. Exports of coffee fallen off \$30,000,000 compared with same period in 1909. Number of tons and value of rubber exported in 1909. Large increase in exports of sugar and cotton. Steady growth in herva matté; all other material items show decrease.	May 9	Do.
Trade conditions and opportunities in Brazil.....	..do....	P. Merrill Griffith, Consul, Pernambuco.
Agricultural implements in Brazil.....	May 11	Do.
Trunks in Brazil.....	..do....	Geo. E. Anderson, Consul-General, Rio de Janeiro.
Horseshoeing in Brazil.....	May 12	Do.
Concessions for iron smelting.....	May 14	Do.
Motor boats in Brazil.....	..do....	P. Merrill Griffith, Consul, Pernambuco.
Automobiles in Brazil.....	..do....	Do.
Wagons in Brazil.....	May 20	Do.
Drug trade in Brazil.....	May 21	Do.
Foreign trade of Rio de Janeiro.....	May 24	Geo. E. Anderson, Consul-General, Rio de Janeiro.
Foreign trade of Brazil in 1909.....	..do....	Do.
Port works at Corumba.....	May 25	Do.
Brazilian steamship service.....	May 26	P. Merrill Griffith, Consul, Pernambuco.
Subsidizing the cultivation of rubber.....	May 27	Geo. E. Anderson, Consul-General, Rio de Janeiro.
Increased shipping service to South America.....	..do....	Do.
Imports and exports at Pernambuco.....	June 2	P. Merrill Griffith, Consul, Pernambuco.
CHILE.		
Annual Trade Report.....	Mar. 5	A. A. Winslow, Consul, Valparaiso.
Business in Chile.....	Apr. 8	C. F. Baker, Vice-Consul, Valparaiso.
New train service over the Andes.....	Apr. 19	Do.
Market for American shoes in Chile.....	Apr. 21	Do.
Chilean savings bank.....	May 2	Do.
Manager for the state railroads.....	May 6	Do.
American traveling men in Chile.....	May 13	Do.
Electrification of railways.....	May 16	Do.
Trade notes: Order placed by Chilean Government for 10,000 tons of Chile coal at about \$5 per ton. Government bonds amounting to £2,600,000 to be put on local market, the money to be used in reconstruction of town of Valdivia and for Arica to La Paz railroad. Bids open for installation of sewerage system and for improvement of water works system of Talca. Hunting of the chinchilla forbidden for period of three years. One hundred thousand dollars appropriated for study and initiation of irrigation work in Province of Tacna. Shutting down of tanning industry in Valdivia affecting business in south of Chile, due to tariff laws of Germany where product is sold.	..do....	Do.
Building in Valparaiso and Santiago.....	May 31	Do.
COLOMBIA.		
Postal customs and regulations of Colombia.....	Mar. 23	Eugene Betts, Vice and Deputy Consul-General, Bogota.
Annual report on commerce and industries, 1909.....	Mar. 29	Do.
Suspension of decree abolishing supplementary duty on flour.....	Apr. 2	Chas. L. Latham, Consul, Cartagena.
Horseshoeing in foreign countries.....	May 10	Do.
Use of steam rollers.....	May 29	Do.
COSTA RICA.		
Annual report on commerce and industries.....	May 14	Samuel T. Lee, Consul, San Jose.
Change in customs tariff of Costa Rica, and recent legislation affecting mining enterprises in the Republic.....	June 22	Do.

REPORTS RECEIVED TO AUGUST 1, 1910—Continued.

Title.	Date of report.	Author.
CUBA.		
Notes on 1909 export and import trade of Cuba.....	1910. May 13	James L. Rodgers, Consul-General, Havana.
DOMINICAN REPUBLIC.		
Annual report on commerce and industries for 1909.....	May 18	A. W. Lithgow, Vice-Consul, Puerto Plata.
ECUADOR.		
Companies doing business in Ecuador.....	May 12	H. R. Dietrich, Consul-General, Guayaquil.
Annual report on commerce and industries for the calendar year 1909.	June 6	Do.
GUATEMALA.		
Annual report for 1909.....	June 24	William Owen, Vice and Deputy Consul-General, Guatemala.
HAITI.		
Annual report on commerce and industries.....	Apr. 30	John B. Terres, Consul, Port-au-Prince.
HONDURAS.		
Conditions at San Pedro Sula.....	Feb. 4	Samuel MacClintock, Consul, Puerto Cortes.
Horseshoeing in Honduras.....	Mar. 29	Arminius T. Haerberle, Consul, Tegucigalpa.
Annual report on Honduras.....	Apr. 29	Do.
Rubber cultivation.....	May 9	Drew Linard, Consul, Ceiba.
Market for horseshoes in Honduras.....	May 12	Arminius T. Haerberle, Consul, Tegucigalpa.
Trade conditions and requirements of the north coast.....	June 20	J. H. Watts, Vice-Consul, Puerto Cortes.
MEXICO.		
Annual report for 1909.....	Feb. 24	Thos. D. Edwards, Consul, Ciudad Juarez.
Annual report on commerce and industries.....	Feb. 28	L. J. Keena, Consul, Chihuahua.
Supplement to annual report.....	Mar. 4	Wm. E. Alger, Consul, Mazatlan.
Pearl fisheries of Gulf of California.....	Mar. 19	Lucien N. Sullivan, Consul, La Paz, Lower California.
Sinaloa investments.....	Mar. 27	Wm. E. Alger, Consul, Mazatlan.
Production of sugar in Mexico.....	Mar. 31	Arnold Shanklin, Consul-General, Mexico City.
Résumé of imports and exports of Mexico.....	Apr. 2	Do.
Defective packing for export.....	Apr. 5	Wm. W. Canada, Consul, Veracruz.
Burial customs and expenses.....	Apr. 6	Lucien N. Sullivan, Consul, La Paz, Lower California.
Production of molasses in Mexico.....	Apr. 7	Arnold Shanklin, Consul-General, Mexico City.
Maritime movement at Mazatlan for March, 1910.....	Apr. 8	Wm. E. Alger, Consul, Mazatlan.
Sugar in Sinaloa.....	Apr. 11	Do.
Tula iron works.....	Apr. 13	Samuel E. Magill, Consul, Guadalajara.
Altitude of principal cities of Mexico.....	Apr. 14	Arnold Shanklin, Consul-General, Mexico City.
Growth and manufacture of cotton in State of Guerrero.....	Apr. 14	Marion Letcher, Consul, Acapulco.
Annual report of district.....	Apr. 15	Louis Hostetter, Consul, Hermosillo.
Project for new water-supply system for Veracruz.....	Apr. 16	Wm. W. Canada, Consul, Veracruz.
Mail-order shoe trade.....	Apr. 18	Marion Letcher, Consul, Acapulco.
Industrial notes: Capitalists of Saltillo to supply capital for zinc smelters in Saltillo, one in State of Chihuahua, and one in State of Nuevo Leon. New brewery projected. Concession signed for construction of Zacatecas and Orient Railway, construction to begin June 1, 1910.	Apr. 19	Thomas W. Voetter, Consul, Saltillo.
Commerce and industries for 1909.....	Apr. 20	Alonzo B. Garrett, Consul, Nuevo Laredo.
Observance of Sunday.....	do.....	Wm. E. Alger, Consul, Mazatlan.
Rubber-growing industry in State of Veracruz.....	Apr. 23	Wm. W. Canada, Consul, Veracruz.

REPORTS RECEIVED TO AUGUST 1, 1910—Continued.

Title.	Date of report.	Author.
MEXICO—continued.		
Opening of new railway.....	1910. Apr. 25	Alexander V. Dye, Consul, Nogales.
Methods of increasing American trade.....	do....	Richard M. Stadden, Vice and Deputy Consul, Manzanillo.
Progress in Matamoras.....	Apr. 26	Jesse H. Johnson, Consul, Matamoras.
Commerce and industries for 1909.....	do....	Philip C. Hanna, Consul-General, Monterey.
Machine for placer mining.....	Apr. 27	Alexander V. Dye, Consul, Nogales.
Cotton crops in Mexico.....	do....	Arnold Shanklin, Consul-General, Mexico City.
National and municipal pawn shops in City of Mexico.....	do....	Do.
Data regarding the City of Oaxaca.....	do....	Do.
Statistics of mining industry in Sonora.....	Apr. 30	Alexander V. Dye, Consul, Nogales.
Purchase of lands in State of Durango.....	Apr. 30	Charles M. Freeman, Consul, Durango.
Inauguration of Bermuda onion industry in Mexico.....	May 3	Alonzo B. Garrett, Consul, Nuevo Laredo.
Walnuts in Mexico.....	May 6	Arnold Shanklin, Consul-General, Mexico City.
Packing of American goods for export.....	May 11	Wm. W. Canada, Consul, Veracruz.
Suggestions for American manufacturers.....	May 12	Wm. E. Alger, Consul, Mazatlan.
Use of steam rollers in construction and maintenance of roads in foreign countries.....	do....	Do.
Horseshoeing in Mexico.....	May 13	Luther T. Ellsworth, Consul, Ciudad Porfirio Diaz.
Use of steam rollers.....	do....	Arnold Shanklin, Consul-General, Mexico City.
Bad packing an incentive to pilfering.....	do....	Wm. W. Canada, Consul, Veracruz.
Use of steam rollers.....	May 14	Charles M. Freeman, Consul, Durango.
Steam rollers in Mexico.....	May 16	Luther T. Ellsworth, Consul, Ciudad Porfirio Diaz.
New coal-mining enterprise.....	do....	Do.
Bad packing for export.....	do....	Wm. W. Canada, Consul, Veracruz.
Horseshoeing in foreign countries.....	May 18	Do.
Rubber industry of Tabasco and northern Chiapas.....	do....	A. J. Lespinasse, Consul, Frontera.
Résumé of imports and exports for February, 1910.....	do....	Arnold Shanklin, Consul-General, Mexico City.
Suggestions for intending investors.....	May 19	Wm. E. Alger, Consul, Mazatlan.
Pneumatic, vacuum, and suction cleaners.....	May 20	Arnold Shanklin, Consul-General, Mexico City.
Use of steam rollers.....	May 21	A. V. Dye, Consul, Nogales.
Interest in agriculture in State of Sonora.....	May 23	Do.
Rubber-growing industry.....	May 24	Lewis W. Haskell, Consul, Salina Cruz.
New slaughterhouse and cold-storage plant at Sabinas.....	May 25	Luther T. Ellsworth, Consul, Ciudad Porfirio Diaz.
Supplement to report on rubber growing.....	May 26	Samuel E. Magill, Consul, Guadalajara.
Opportunity to advertise American goods.....	May 27	A. V. Dye, Consul, Nogales.
Mexico Northwestern Railroad to build branch from San Antonio, Chihuahua, to Cusihuiriachic.....	May 28	L. J. Keena, Consul, Chihuahua.
Report on decree governing public or government lands in Mexico.....	do....	Arnold Shanklin, Consul-General, Mexico City.
American trade with Ciudad Porfirio Diaz rapidly increasing.....	June 1	Luther T. Ellsworth, Consul, Ciudad Porfirio Diaz.
Henequen in Chiapas.....	do....	A. W. Brickwood, Consul, Tapachula.
Pan-American Railway progress.....	do....	Do.
Mexico importing grain from South America.....	June 4	Wm. W. Canada, Consul, Veracruz.
Export data for 1909.....	June 6	Wm. E. Alger, Consul, Mazatlan.
Construction of Veracruz, Tabasco and Campeche Railroad; opportunities for contractors.....	June 8	A. J. Lespinasse, Consul, Frontera.
Mazas Valley irrigation works.....	June 9	Charles M. Freeman, Consul, Durango.
Agricultural possibilities in State of Chiapas.....	June 10	A. W. Brickwood, Consul, Tapachula.
The guayule industry.....	do....	Charles M. Freeman, Consul, Durango.

REPORTS RECEIVED TO AUGUST 1, 1910—Continued.

Title.	Date of report.	Author.
MEXICO—continued.		
Public improvements in Magdalena.....	1910.	A. V. Dye, Consul, Nogales.
Opportunities for American manufacturers of gas ranges, heaters, fixtures, and appliances.....	June 14	Arnold Shanklin, Consul-General Mexico City.
Sinaloa mining notes.....	June 16	Wm. E. Alger, Consul, Mazatlan.
Commercial report for Calina Cruz district.....	June 20	Lewis W. Haskell, Consul, Calina Cruz.
Construction of highway from Mexico City to Acapulco.....	June 22	Marion Letcher, Consul, Acapulco.
Packing of American goods for export.....	July 6	Alonzo B. Garrett, Consul, Nuevo Laredo.
Mormon colony in Mexico.....	July 14	Luther T. Ellsworth, Consul, Ciudad Porfirio Diaz.
Chihuahua dogs.....	July 15	L. J. Keena, Consul, Chihuahua.
Mazatlan items.....	July 19	Wm. E. Alger, Consul, Mazatlan.
PANAMA.		
Annual trade report for 1909.....	Mar. 31	J. E. Kellogg, Consul, Colon.
Agricultural enterprise near Colon.....	Apr. 28	Do.
Annual report and industries.....	May 2	Alban G. Snyder, Consul-General, Panama.
Supplement to annual report for 1909.....	May 19	Do.
Palm trees of the Isthmus suitable for industrial use.....	June 2	J. E. Kellogg, Consul, Colon.
PARAGUAY.		
Toilet soaps.....	Mar. 5	Cornelius Ferris, jr., Consul, Asuncion.
Railway extension in Paraguay.....	Mar. 14	Do.
Corrected report on railway extension in Paraguay.....	Mar. 29	Do.
Boat building and facilities for motor boating in Paraguay.....	Apr. 29	Do.
SALVADOR.		
Salina Cruz steamship service of the Salvador Railway Co. (Limited). ..	Apr. 1	Harold D. Clum, Vice-Consul-General, San Salvador.
URUGUAY.		
New Uruguay tariff.....	Mar. 12	F. W. Goding, Consul, Montevideo.
Radiotelegraphic tariff in Uruguay.....	Mar. 18	Do.
Beginning of asphalt paving in Montevideo.....	Mar. 22	Do.
Port of La Paloma.....	Mar. 26	Do.
New railways in Uruguay.....	Apr. 9	Do.
Exports of meat from Uruguay during quarter ending March 31, 1910.....	do.	Do.
Annual report for 1909.....	Apr. 11	Do.
Regulations for handling goods at custom-house, Montevideo.....	Apr. 20	Do.
VENEZUELA.		
Perfumes in Venezuela.....	Mar. 28	I. A. Manning, Consul, La Guaira.
Tariff changes in Venezuela.....	Mar. 29	Do.
Programme of centennial celebration of anniversary of Venezuela's independence.....	do.	Do.
Customs duties on web belts.....	Apr. 5	Do.
Jipijapa fiber.....	do.	Do.
Revolvers, shotguns, and bicycles in Venezuela.....	Apr. 13	Do.
Cocanuts in Venezuela.....	do.	Do.
Coffee and cacao exports of Venezuela.....	Apr. 14	Do.
Hammocks in Venezuela.....	do.	Do.
Tonca beans at Ciudad Bolivar, Venezuela.....	Apr. 15	Do.
Coal charter from Cardiff to La Guaira.....	Apr. 21	Do.
Motor boats on the Rio Tuy.....	do.	Do.
Revenue stamp rights in Venezuela sold to private parties for two years.....	Apr. 22	Do.
Ant-destroying machines.....	Apr. 23	Do.
Cash registers and duties thereon.....	do.	Do.
Coal exported from Cardiff to Venezuela in 1909.....	Apr. 25	Do.
Resolution of Venezuelan Government concerning assessment of cash registers.....	Apr. 26	Herbert R. Wright, Consul, Puerto Cabello.
Steel dock to be built at Puerto Cabello.....	Apr. 30	Do.
Gross weight and specific duties in South America.....	Apr. 29	I. A. Manning, Consul, La Guaira.
Steel dry dock at Puerto Cabello.....	Apr. 30	Do.
New tariff classifications in Venezuela.....	May 4	Do.
Surety bonds for foreign agents of American manufacturers.....	May 10	Ralph J. Totten, Consul, Maracaibo.
Resolutions of Venezuelan Government on assessment of tiles and jars.....	May 17	Herbert R. Wright, Consul, Puerto Cabello.

REPORTS RECEIVED TO AUGUST 1, 1910—Continued.

Title.	Date of report.	Author.
VENEZUELA—continued.		
Venezuelan notes: Argentine Minister has made arrangements to transmit Venezuela news to Argentine press by cable via London. President authorized by Congress to eliminate custom-houses at Pampatar, Puerto Sucre, Guanta, and Cano Colorado, and to simplify work at Cristobal Colon and San Antonio de Tachira. Efforts made by German agency to secure introduction of Telefunken system of wireless telegraphy. Cotton planting in region of Aragua receiving attention and prospects are for satisfactory crop. Sea-island seed received from Philadelphia; same will be planted on Island of Margarita. Public works begun in and about Caracas, such as opening of new street across the Guaire River and construction of steel bridge across same; materials to cost \$43,780 ordered from the United States.	1910. May 26	I. A. Manning, Consul, La Guaira.
Tariff changes on bolstered wines and shoe heels.....	..do....	Do.
Surety bonds.....	May 27	Do.
Iron beds in Venezuela.....	..do....	Do.
Tariff changes on coach, wagon, and cart tires.....	May 28	Do.
Schools in Venezuela.....	May 30	Do.
Tariff changes on telescopes, sheet, tin, or metal canals, and revolvers.....	..do....	Do.
Tariff changes in Venezuela.....	..do....	Do.
Annual report on commerce and industries, 1909.....	June 3	Ralph J. Totten Consul, Maracaibo.
Use of steam rollers in construction and maintenance of roads in foreign countries.....	June 6	Do.
Manufactures enjoying a protective tariff in Venezuela.....	June 7	I. A. Manning, Consul, La Guaira.
Concession for banana plantations.....	June 8	Do.
Custom changes on colored cotton serge.....	..do....	Do.
Contract to seek for pearls, mother-of-pearl, amber, coral, and sponges on west coast of Venezuela.....	June 9	Do.
New pier at Ciudad Bolivar.....	June 11	Do.
Important railway concession in Venezuelan Guayana.....	..do....	Do.
Duty removed on printing paper for newspapers in Venezuela..	June 13	Do.
Tariff changes on plain cotton cloth.....	..do....	Do.
Resolutions changing duties on merchandise imported into Venezuela.....	June 16	Herbert R. Wright, Consul, Puerto Cabello.
Steam tramway from Río Chico to port of Tuy.....	June 18	I. A. Manning, Consul, La Guaira.
Tariff changes on iron washers, axle guards, etc.....	June 23	Do.



ARGENTINE REPUBLIC

MESSAGE OF THE PRESIDENT.

Congress was opened on Thursday, May 5, 1910, and the President of the Republic delivered a very interesting and instructive message and one which presents in admirable detail the most noticeable features of Argentina's great commercial, financial, and educational progress during his administration.

The essential stability of the prosperity of the Republic is indicated by the enormous growth in its foreign commerce. Not even a year of great financial depression could check its steady and progressive growth. The figures of the foreign trade in 1908 show a most favorable balance of trade in favor of the Argentine Republic. For the year 1909 there was a still further increase in the international trade of the Republic amounting to nearly 10 per cent, and which, unlike 1908, shows a decided increase in the imports as well as the exports of the country. The total foreign trade for the year 1909, according to the figures quoted by the President, aggregated in round numbers \$700,000,000. The President shows the extraordinary development of the country's foreign trade by a comparison of the figures reached in 1900 with those for 1909. The imports, which in 1900 were valued at \$113,435,067, in 1909 aggregated \$302,756,095, representing an increase of 166 per cent. The exports show approximately the same increase, since in 1900 their value was represented by \$154,600,412, and in 1909 they had reached the high figure of \$397,350,528, which represents an increase of 156 per cent during the ten years.

The statement of the President as regards finances and general monetary situation shows the sound and stable condition of public and private credit throughout the Republic. The President regards the reform effected in the currency one of the most important achievements of the Government during the last decade. At the beginning of the present century Argentina's credit and commerce suffered on account of the inconvertible paper currency. The premium demanded for gold increased to such an alarming figure that steps to check the depreciation of the country's paper currency became imperative. The Government therefore took prompt action, establishing a conversion office and undertaking to maintain the gold premium at 127 per cent, that is, at an exchange ratio of 2.27, thus fixing the value of the paper peso at approximately 44 cents. To maintain this ratio it was necessary to establish a large gold reserve in the conversion office. This reserve fund which began in 1902 with the modest sum of \$2,843 in gold has been increased year by year until

it now aggregates \$201,653,000, without taking into account some \$30,000,000 on deposit in the National Bank to guarantee issues of paper money made prior to the establishment of the conversion act. The combined total of these two sums exceeds by 70 per cent the value of all issues of paper money in actual circulation or in the various banking establishments of the country. This excess of the reserve fund over the amount in circulation, is, according to universal experience and the example and practice of the great banking institutions of the world, amply sufficient to assure the permanent convertibility of the paper issues at the ratio fixed by the Government.

In treating of foreign affairs, the President refers with great satisfaction to the successful outcome of the special mission of Doctor ROQUE SAENZ PEÑA, Envoy Extraordinary and Minister Plenipotentiary to the Governments of Italy and Switzerland, to the Republic of Uruguay. This mission resulted in the signature, on January 5, 1910, in Montevideo, of a protocol concerning the navigation and the use of the waters of the River Plate, and also provides for the settlement in a spirit of cordiality and harmony of any difference which may arise as to navigation or water rights of the river in question.

In order to secure the cooperation of the various nations of the civilized world on the occasion of the national centennial celebrations, cordial invitations were extended to the various foreign governments to participate with Argentina in the celebrations of the first centennial of her independence, and these invitations were most courteously acknowledged with universal congratulations to the Republic on the attainment of its one hundredth birthday.

Great advancement has been made in the Department of Public Works. With a view to increasing the traffic on the national railway lines, the chief executive proposed and the National Congress sanctioned a general and comprehensive plan for the construction of irrigation works at such points as may be settled upon as most suitable by actual field surveys. These works are of the greatest importance to the economic development of the country inasmuch as they will effectively open up for exploitation thousands of acres of hitherto undeveloped land which need only a sufficient supply of water to make them as productive as any in the Republic. The extraordinary development which the domestic and foreign trade of the Republic underwent during the past decade has been due to several causes, but above all to the far-sighted policy of the Argentine Government in encouraging the building of railways and telegraph lines. The President, recognizing the importance of these veritable arteries of commerce, devotes especial comment to the numerous railways now under process of construction, particularly to those

in the National Territories, which will within a very short time furnish an outlet to market for some of the most productive but hitherto inaccessible parts of the Republic.

In other branches of the public service corresponding activity is noticeable. The administration of the postal and telegraph services has been marked by steadily increasing efficiency. The number of letters, cards, postal packages, and miscellaneous parcels handled during the year under review exceeded by 11 per cent the number handled in 1908. The net increase in the postal revenues amounted to 950,098 pesos, national money, and the telegraphic movement was greater than that of the previous year by nearly 12 per cent.

The message shows that the Government has continued to lend its hearty support to the diffusion of knowledge and increase of the facilities for education for all sorts and conditions of people throughout the country. A school census was taken on May 23, 1909, and showed that the number of children of school age in the Republic aggregated 1,200,212. There has of late been a greater proportional increase in the number of children of school age than in the supply of available teachers. Steps have been taken, however, to supply the deficiency by the establishment during the present year of a number of new normal schools.

The important part which the agricultural schools are destined to play in the development of the great basic industry of the Republic is foreshadowed by the change already noticeable in farming and farm life. In spite of insufficient appropriations they have accomplished results as striking as those obtained by any other agency of the National Government. By scientific study of all matters connected with the advancement of farm life, by experimental stations, by teaching the scientific cultivation of the soil so as to make each and every acre produce the maximum of which it is capable, by the practical application of anything which in theory has been demonstrated to be efficient; in these ways, and in many others, great good has been accomplished in raising the standard of productiveness throughout the country.

THE AGRICULTURAL EXHIBITION.

The International Exposition at Buenos Aires was opened on May 25 and will be continued until October 1. Among the various exhibitions which have been opened up to the present time perhaps none has awakened so keen an interest among the spectators or caused as much favorable comment in the public press as that which is associated with the great national industry of the Republic.

Competent and disinterested stockmen stated that never before had they seen such a fine lot of cattle, sheep, and horses as those displayed

at the international agricultural exhibition. This praise from men who have had a lifelong experience as judges at live stock and cattle shows is not lacking in encouragement to Argentine breeders.

Of no less interest to the spectators were the great machinery and agricultural implement exhibits, the brilliant success of which was due in a large measure to the efforts and care of foreign exhibitors. A graceful acknowledgment of the helpful cooperation of these exhibitors was made by Doctor FRERS, President of the Argentine Rural Society, in a speech at the official opening of the exhibition.

The speech of Doctor FRERS was in the main an excellent appreciation of the part played by the agriculturists in the upbuilding and prosperity of the nation. Doctor FRERS said:

It is to the success of the agriculturists of the Republic that the country owes its present fame; to their efforts it owes this river of gold through which it may allow itself these festivities and display institutions characteristic of a modern civilization. Its army, its navy, its schools and scientific institutions, and its public works all rise as if by enchantment or perfect themselves under the sway of that magic wand held in the hands of those who dedicate their minds to the governing and directing of the marvellous work which populates the country with cattle and fills its fields with flowing grain.

Doctor EZCURRA, Minister of Agriculture, was next to speak, and cordially indorsed all that the President of the Rural Society had said with reference to the importance of doing everything possible to encourage the further agricultural and pastoral development of the country. He referred in glowing terms to the incalculable services rendered by Señor OLIVERA, the founder of the Rural Society, who was a pioneer in the raising of fine cattle and blooded horses.

The "Buenos Aires Herald," in a spirited description of the special parade of the animals before the Infanta ISABEL, of Spain, and the President of Chile, says:

There is no gainsaying the fact that the animals made a magnificent show. The showy handsome Percherons, the powerful Shires, sturdy Clydesdales, and other heavy draft horses were first to make their appearance, followed by the Suffolk Punches and light-draft animals. Next came the coaching horses, which met with a great reception, and then the ring was cleared for the Arabs, Anglo-Arabs, and pure bloods. The crowd had a very exciting influence on the high-spirited animals, and there was no lack of acrobatics on the part of the equine performers.

When the horned cattle made their appearance an animated welcome was given the huge champion coming in for an ovation as he was brought to a standstill before the presidential stand. Herefords followed the Shorthorns, and then came the Aberdeen, Angus, Red Polled Angus, Holsteins, etc., all coming in for their share of the applause.

THE ARGENTINE DREADNOUGHTS.

The keel of the first of Argentina's new "Dreadnoughts" was laid by the Fore River Shipbuilding Company on May 25, 1910—the first of the battle ships is to be completed in two years and the second three months later. The names of the vessels as announced by the press

will be *Moreno* and *Rivadavia*. Their dimensions and equipment are as follows:

Displacement.....	tons..	28,000
Length.....	feet..	578
Beam.....	do....	95
Draft.....	do....	27½
Horsepower.....		60,000
Speed.....	knots..	22½

Battery.—Twelve 12-inch guns in six turrets, fourteen 6-inch, twelve 3-inch, two submerged torpedo tubes.

The maximum thickness of the water-line belt will be 12 inches, diminishing to the bow and stern, respectively. The protection for the turrets will be from 7 inches to 12 inches of armor.

The contract for building the ships was awarded to the Fore River Shipbuilding Company at a cost of \$22,000,000, it being agreed that they were to sublet the building of one of the ships to the New York Shipbuilding Company at Camden, N. J.

The contract was won by the Fore River Shipbuilding Company in competition with shipbuilding firms of England, France, Germany, and Italy.

The gun power is as follows:

	12-inch.	8-inch.
Weight of projectile.....	pounds.. 870	105
Initial velocity.....	feet.. 3,000	3,000
Muzzle energy.....	tons.. 16,900	2,030
Rapidity of firing per minute.....	2	8

THE CENTENNIAL CELEBRATION.

For months the newspapers, periodicals, and magazines, not only of Latin America, but also the more representative newspapers of the United States and Europe, have devoted columns in their news and editorial sections to the discussion of the significance of the great Centennial Celebration which is being held at Buenos Aires.

It would be impossible to reproduce the innumerable articles which have appeared during the past few months, but an idea of their general character may be gained from the speech delivered by Sir EDWARD GREY, the British Minister of Foreign Affairs, at a dinner in London at which 500 men of public eminence assembled to celebrate the occasion. As reported by the London correspondent of "*La Nacion*" and published in its issue of June 24, 1910, Sir EDWARD said in part:

The present prosperity of the Republic is shown in the progress of its trade, the growth of which has been enormous, particularly in recent years. I would especially direct attention to the fact that the great growth of that prosperity has occurred in the last twenty-five years, because that is one of the most satisfactory features of the

situation. It means not only that the first hundred years is closing in prosperity, but that the next hundred years is beginning in prosperity, and if to-day the Argentine Republic can feel satisfaction at the great position it has won, it can do so not only with the probability but with the certainty that it has not come to the end of its success, but is at the beginning of a still greater future. Twenty-five years ago the total foreign trade of the Republic amounted to about £35,000,000 sterling; but now, after twenty-five years, it is £140,000,000, an enormous development in that period. But that does not tell the whole story. This has been no mushroom growth, rising quickly soon to fall. It is a trade on a thoroughly sound basis, not ministering to luxuries or fancies, but to the real interests of the world, a trade which has benefited not only the country which produced it, but the world at large. By developing its own land and natural resources the Republic has not only made itself a great country, but has strengthened the resources of the world and increased its capacity for rearing and supporting a strong and healthy race. * * *

No wonder the world to-day is showing sympathy for their centenary.

GENERAL WOOD ON ARGENTINA'S ARMY AND NAVY.

Gen. LEONARD WOOD, Chief of Staff of the United States Army, who has recently returned from the Argentine Republic, where he was Special Ambassador of the United States to the Centennial Celebration held at Buenos Aires, is credited in the "New York Herald" with the following observations on the personnel and organization of the Argentine Army:

The spirit in Argentina is one of intense interest in their army and navy. Both are perhaps equally popular and both highly efficient. The ideals of the Argentine people are practically those of the people of the United States.

They have a well-balanced republican government and only such military forces, afloat and ashore, as are necessary to protect their interests. The people, like ourselves, are intensely interested in the development of the vast natural resources of their country, which are very similar to ours, especially all which pertains to the production of grains, cattle, sheep, etc. The greatest impediment to an extensive manufacturing system is the absence of coal.

In the Argentine army they have 20,000 men with the colors and an instructed reserve, something like our militia, of 150,000. They have a form of obligatory service of six months. For the last year there has been obligatory service of one year in the army, two in the navy.

Instruction in this army is vigorous and thorough during the entire period of service. They have a good general staff organization, and a superior school of war for training staff officers and special training of line officers, under the care of specially selected line officers.

In Argentina there are excellent relations between the officers and the men. There are few court-martials and insubordination is rare. Their infantry is of a sturdy type, good marchers, well uniformed and equipped. The cavalry is well mounted and they are good horsemen. The bulk of the cavalry is armed with saber and carbine, and there is also one regiment of lancers and one heavy regiment of cuirassiers. They are all very smartly turned out and make fine troops.

Compulsory service, it has been found in Argentina, as elsewhere, is useful not only in making good soldiers, but also good citizens are so made. Men from remote districts, after a year's service with the colors, have a greater respect for the flag, for the authorities, and the National Government.

These men have also benefited physically and acquired habits of promptness and exactness. They return to their communities in every way improved by the service. All who enter unable to read and write are taught during their service. After the year's service with the colors men are called out at intervals, gradually decreasing in frequency, for short periods of service with the colors during maneuvers, usually about six or eight days a year. Careful track is kept of the reserves, who are almost immediately available in case their services are needed. Sufficient equipment for them is held in reserve.

BUSINESS CONDITIONS IN ARGENTINA.

An American business man who is in Argentina for the purpose of looking into business conditions in that country has been kind enough to send the "New York Sun" a brief summary of his experience and his observations in connection with the commercial phases of the International Exposition which is a part of Argentina's celebration of its hundredth birthday. His comment is illuminating and suggestive, and there is every reason to regard it as accurate and trustworthy. The article reads in part as follows:

The reason for the delay in turning over the American exhibition building was the necessity for its enlargement when the American Congress made an appropriation which enabled the Government to be officially represented. The appropriation was not made until last February. We have a huge exposition palace with 60,000 square feet of floor space, and every inch of it is filled.

Most American concerns are represented in Argentina by European houses as agents, and I learn from a most trustworthy source that these houses have an agreement or understanding by which the sale of American merchandise is limited. My attention was called to a particular case, that of an American concern formerly represented here by a British firm. Under that arrangement sales averaged about \$30,000 a year. Disgusted with so small a business in a field in which the Americans believed they should do a large and profitable trade, they established an independent agency with one of their own people in charge of it. Their sales already amount to nearly \$1,000,000 a year.

I am told that when the exposition was being planned, a little over a year ago, a number of the prominent foreign houses here agreed upon a general boycott of the exposition, alleging that they could not afford to take part in it. The truth is that they wanted the plans for the exposition to fail because they are afraid of an invasion of this market by American manufacturers. If there is any way to get fast ships between this port and New York, we can get a lot of this trade. A few days ago one of my friends went to several big stores here and asked for different articles. When he was told they did not have them, he said: "Can you send to the United States for them if I give you an order?" In every case the reply was, "Why, that would take too long; let us send to Europe for them." We could get a great deal of this order business if there were fast regular steamship service. Ordinarily an order sent from here by mail to the United States would not produce the goods in much less than ninety days. You can send orders to Europe by steamships every few days, and some of the vessels make the run in fifteen days.

England would lose out here very rapidly if it were not for her large financial investments. English railroads have in many cases their purchasing offices in England. Germany is pushing very hard in this market. There is a German commercial representative stationed here at a big salary, as salaries go. He is independent of both the legation and the consulate. He is at work all the time, and does not merely spend a few weeks in the place writing superficial reports.

REGISTERED BLOODED STOCK.

That the number of blooded animals in Argentina is rapidly increasing is shown by the new herdbook, some statistics from which were published in a recent issue of "The Review of the River Plate." On February 28, 1910, there were registered 29,077 bulls, of which number 22,117 were Shorthorns; 34,191 cows, of which 25,146 were Shorthorns; and 22,058 sheep, 20,178 of which were Lincolns. Most of the blooded horses in the Republic are of the Clydesdale, Percheron, or Shire breeds.

The number of blooded animals displayed at the International Agricultural Exhibition grounds contributed more than anything else toward making this one of the most visited and popular exhibitions of the exposition. From an agriculturist's point of view no better collection of animals has ever been presented for public inspection than that which was to be seen at the Rural Society's grounds in Palermo. The best that Argentina can produce was to be seen side by side with the best which Europe or other competing continents can send. The fact that a very large number of native-bred animals took many of the most desirable prizes will serve to attract the attention of breeders of fine stock to the magnificent stock raising possibilities of the Argentine Republic.

COTTON-RAISING POSSIBILITIES.

A series of competitions are to be held under the auspices of the Minister of Agriculture during the agricultural year 1910-11 for the encouragement of cotton growing, especially in the northern part of the Republic. Various money prizes, together with diplomas of honorable mention, are offered for success in these contests, while medals and money prizes are also offered for cloth and thread manufactured from Argentine cotton and for oil from Argentine cotton seed.

It has been estimated that while about 150,000,000 acres of land in Argentina are suitable for cotton growing only 4,295 acres are under cultivation. It is confidently expected that the energetic measures adopted by the Minister of Agriculture and the completion of a number of irrigation projects will add very materially to the cotton production of the Republic.

ICE-SKATING RINK FOR BUENOS AIRES.

The first fortnight of July saw the opening of a real ice-skating rink in the capital city. The architecture of the rink building, both inside and out, is suggestive of elegance and taste, constituting a veritable palace, which will be dedicated to this most popular of the winter sports of colder climes.

The skating season will last from the time of opening until October 31 and will recommence on April 1. In the meantime the premises will be used for cinemetograph shows, dances, banquets, and other diversions.

The opening of this rink is one incident showing the great growth of the amusement-furnishing industry of the city of Buenos Aires in the past few years, and is also a pleasing addition to the many attractions which this Paris of America already offers to its sport-loving population.

TRADE OPPORTUNITIES.

The "Boletin Oficial," of Buenos Aires, contains the draft of a bill providing an extraordinary credit of 10,000,000 pesos, national money, for the purchase of galvanized sheets, to be used as barriers in accordance with the scheme which has been drawn up by the Department of Agriculture for the destruction of locusts. Under the terms of the bill the executive authorities are empowered to secure up to 10,000,000 meters of galvanized sheets. The bill as voted by the Chamber of Deputies increased the amount of material to be purchased to 20,000,000 meters.

A decree has also been granted to the Buenos Aires Great Southern Railway with permission to construct a line of railway from Olavarría to Las Nutrias, 22 miles to the south of Balcarce.

The Argentine Central Railway has been authorized to construct and operate a section of railway from Chañar Station northward for a distance of about 10 miles.

By a law just published provision is made for the opening of a supplementary credit in favor of the Department of the Interior of 500,000 pesos, national money, toward the cost of fitting up and furnishing a section of the government buildings which have been set aside for the use of the President of the Republic.

The tenders submitted by Messrs. Lavenás y Compañía have been accepted for the construction of three district hospitals, one in Rosario, a second in San General Guemes, Province of Salta, and a third in San Pedro, Province of Jujuy. The contract price is 97,840 pesos, national money, for each hospital.

The "Compañía Alemana Transatlantica de Electricidad," the main office of which is at Berlin, has obtained a concession for utilizing the waters of the River Mendoza to generate electricity, and is now constructing the necessary works.

NEW HOSPITAL FOR ROSARIO.

Consul HENRY P. COFFIN, of Rosario, reports to the State Department of the United States that a few of Rosario's progressive citizens have started a public subscription for a new hospital in Rosario

in honor of the centenary. So anxious were the people of the city to aid the movement that up to May 13 over \$400,000 had been subscribed. It is proposed to construct one of the finest modern hospitals in South America and also have a medical college in connection with the hospital.

CONSULAR NOTES.

The municipal census of Rosario in April showed 192,278 inhabitants, not including several thousand absent working in the harvest fields.

It is stated that the Great Southern Railway will soon submit to the Minister of Public Works a plan for an elevated railway in Buenos Aires and its suburbs.

The Pacific Railway Company, in conjunction with the Central Cordoba extension, is employing over 1,300 workmen on land it is reclaiming from the River Plate in Buenos Aires.

The new cable being laid between Argentina and Europe via Cape Verde is about 3,200 nautical miles long; 200 miles from La Plata a buoy was placed to which the deep-sea cable was attached.

Argentina's purchases of electrical goods, according to a recent report of the Belgian legation in Buenos Aires, in percentages are from the following leading countries: Germany, 49.1; United Kingdom, 31.2; United States, 9.8; France, 3.6; Italy, 3.3; Belgium, 1.4.

A report has just been published by the National Labor Office, written by Dr. Frederico Figueroa, on the development of the sugar industry in the Province of Tucuman, where 160,146 acres are under sugar cane. Hours of work average ten to twelve daily and during harvest fourteen. The importation of foreign sugar plants is recommended, with greater attention to selection of plants.

The Argentine consul at Lausanne, Switzerland, reports that the Swiss butchers declare the mutton of the trial shipment of Argentine wethers sent there to be fine and exquisite, but with a large quantity of fat, which proved a serious obstacle to sale. With less fat it is thought that Argentine mutton would find a ready market in Switzerland, competing with Hungarian and other animal products there.

Argentine railways carried 737 new thrashing machines during the past season, 365 going to the Province of Buenos Aires, 50 to Santa Fe, 183 to Cordoba (where the thrashing machine is being used more and more), 124 to the rapidly developing Pampa Central, and 15 to Entre Rios. As 5,862 thrashing machines were employed in the previous harvest, there are now some 6,599 in use in the Argentine Republic.

BOLIVIA

"THE ZENITH REPUBLIC."

Under the engaging title "The Zenith Republic," Col. WILLIAM J. BRYAN contributes to a recent issue of the "New York World" an article in which he records the impressions made upon him of a personal visit to Bolivia. Mr. BRYAN states that while Bolivia, the highest republic in the world, has been little visited by tourists in the past, this will no longer be true of the future, as her interior cities are now connected with the outside world by two trunk lines of railway. There are two routes between which the tourist may choose, or, better still, if he follows Mr. BRYAN's advice, he will enter Bolivia by one route and leave by the other. The Peruvian route leaves the Pacific at Mollendo, passes through Arequipa, and at Puno connects with a boat line on Lake Titicaca, which, in turn, connects with the La Paz Railway at Guaqui. The second, or Chilean, route to La Paz leaves the ocean at Antofagasta and runs northeast through Uyuni and Oruro, and is about 600 miles long. This road has a through train of sleepers once a week, and it takes two days to make the trip.

In treating of industrial Bolivia, Mr. BRYAN says:

The agricultural resources of Bolivia are considerable; the best description of them is found in a book published in Washington by the International Bureau of American Republics. It was brought to my attention and recommended by Bolivian officials. According to the figures given in this book, Bolivia has some 600,000,000 acres of tillable land, and of this less than one-twentieth is now under the plow. This gives some idea of the possibilities of the country. With only 2,000,000 people occupying an area of some 700,000 square miles, two-thirds of it capable of cultivation, it is no wonder that the people of Bolivia believe that their country is destined to play an important part in the development of South America.

Concerning the great mineral wealth of Bolivia, he says:

Minerals furnish the chief source of Bolivia's wealth. In three hundred and twenty years, from 1545 to 1864, the mines of the Potosi district yielded over \$3,500,000,000 in silver.

Nor is Bolivia's mineral wealth confined to silver, for, as the article states, the Republic possesses extensive copper deposits, some of exceeding richness. Ore is being shipped through Antofagasta running more than 25 per cent copper. The exports of this product amount to approximately a million dollars per year, but owing to the expense of shipment only high-grade ores can be used, the lower grades being left for future exploitation.

"Tin, however," according to Mr. BRYAN, "seems to promise most among the money-yielding minerals. The deposits of this ore are very rare, the Straits Settlements of Asia now furnishing the world with

the larger part of its tin. Bolivia is producing some 10,000 tons of bar tin per year, and the officials believe that the output will be very largely increased."

Besides silver, copper, and tin, Bolivia has gold, bismuth, borax, petroleum, and coal. The petroleum and coal have not yet been developed; but it is confidently predicted that the next decade will see a great change in this matter, as the high price of coal, averaging from \$30 to \$40 per ton on the mountains, will furnish a very material inducement to the exploitation of the fields.

THE BOLIVIAN-BRAZILIAN ARBITRATION COURT.

The Bolivian-Brazilian Arbitration Court, created by the treaty of Petropolis of November 17, 1903, between Brazil and Bolivia, for the settlement of claims against either Government arising from administrative acts in the territory of Acre, closed its sessions on the 3d of November, 1909, in the city of Rio de Janeiro, after holding 42 sessions, in which it decided all claims submitted to its consideration. These claims, 100 in number, involved a total amount of nearly \$12,500,000. Eighteen cases were rejected by the court, and of those admitted \$540,711.30 were adjudged against Brazil and \$263,521.50 against Bolivia.

The court was constituted as follows: Monsignor ALEJANDRO BAVONA, Apostolic Nuncio in Rio de Janeiro, President of the Court; Senhor U. DO AMARAL, Brazilian arbitrator; and Señor DON CLAUDIO PINILLA, ex-Minister for Foreign Affairs, Bolivian arbitrator. The secretaries were: For Bolivia, Señor ADOLFO DÍAZ ROMERO; and for Brazil, Senhor EDUARDO OTTO THEILER, who also acted as Secretary-General of the Court.

OPENINGS FOR AMERICAN TRADE.

In the Bolivian budget for 1910 the following items of expenditure appear: Eighty-nine thousand bolivianos for the construction of new telegraph lines; 50,000 bolivianos for the reconstruction of existing telegraph lines and the purchase of conductors; 115,500 bolivianos for waterworks and sewage works; 204,000 bolivianos for the construction of public works in general. The boliviano is equivalent to approximately 39 cents United States money.

The "Bulletin Commercial," of Brussels, of July 2, 1910, quoting from a report by the Belgian Legation at La Paz on the condition of the electrical industry in Bolivia, calls attention to the circumstance that, owing to the present high price of coal and other fuel material in Bolivia, there is every prospect that greater use will be made in the future of the abundant waterfalls and rivers for electrical purposes. Hydro-electric plants, the report adds, will therefore be in increasing demand in Bolivia, especially high-tension generators with high-pressure hydraulic motors.



MESSAGE OF THE PRESIDENT.

The message of the President, delivered to Congress May 3, 1910, furnishes an excellent idea of the great part which the Government is playing in the exploitation of the natural resources of that great Republic. The Government is devoting special attention to the development of the agricultural and pastoral industries. A Bureau of Agricultural Inspection was created by a presidential decree of September 16, 1909. This bureau will make a scientific study of the agricultural industry in Brazil, its present condition, and the causes retarding its development, and will make recommendations for the improvement of what is now the most vital industry of the country. The Department of Agriculture has devoted its whole energy to the work of improving the welfare of the farmers and stock growers of Brazil. Not only have the conditions of farm life been greatly improved through the efforts of this department, but the standard of productiveness of farm work has also been very materially increased.

With reference to port improvements, the President's message shows that works are in progress at Manaus, Para, Natal, Cabedello, Recife, Bahia, Rio de Janeiro, Santos, Florianopolis, and Rio Grande. Similar works are under survey at the ports of Itaqui, Camocim, Fortaleza, Jaguarua, Victoria, and Paranagua. Port works at Corumba are also under construction.

At the port of Para the first section of the quays, 400 meters in length, has been opened; three of the warehouses have been erected and are now in operation, and the fourth will soon be completed. The channel of approach has been dredged to a depth of 8 meters.

The quay wall at Rio de Janeiro was increased during the year by 539 meters, the total length now being 2,433 meters. Five warehouses, covering an area of 17,500 square meters, have been erected, and the work on six others is far advanced. The finished section of the wharf is equipped with modern warehouses and all other needful appliances for the economical operation of the port. During the year the Government called for proposals for the lease of the port quays, and has already awarded the contract. The port revenues in 1909 amounted to 1,592,154 milreis.

That portion of the message on the subject of railways contains sections of such commercial and financial moment that they will be quoted in their entirety. In general, the message shows that while considerable railway construction was carried on in Brazil during

1909 in a way that would bring a greatly extended mileage into actual use, still a great deal of the work accomplished during the year was in the nature of grading and filling and other preparatory construction work for a large amount of track which will come into actual use during the current year. The amount of space and attention which the President bestows upon the railway situation of the country is a clear indication that it will be the policy of the Government to continue its great railway-building enterprises. In the course of his message President PEÇANHA says:

Facts relative to the railway situation of Brazil show the uninterrupted efforts of the Government to extend the railways into the interior of the country. While there was no great extension of the trackage during 1909, it may be seen that during 1910 an extension of lines exceeding the greatest expectations will be opened to traffic. During the past year 366 miles of railway, of which 290 miles belonged to the Federal Government and 76 miles to the State Government, were opened to traffic. The total mileage of the country was increased from 11,844 miles to 12,183 miles. Within a few months lines to the extent of 1,477 miles will be placed in operation, all under the ownership of or under concession from the Federal Government, which fact indicates the desire of the Government to develop transportation and secure the greatest possible results within its power. The construction now going on follows the policy of the formation of great interior systems, by means of the principal lines of which districts of important commercial interests are knit together, extending the area with facilities for shipping products, reducing the cost of transportation, and subjecting it to a system of simple and uniform freight rates.

The message calls attention to some of the new railway connections now being made, particularly noting that within a very short time Rio de Janeiro and Victoria, the first port to the north along the coast, will be brought within railway connection, while in the north the capitals of the States of Alagoas, Pernambuco, Parahyba, and Rio Grande do Norte are now connected by rail. Decrees have also been recently issued for the construction of another great system to connect the States of Ceará, Piahy, and Maranhão, and later, Pará. The President says in this connection:

With the roads already established, with the completion of the Rio Grande do Sul system with some lines by way of complement which must be added to it, with the construction of the Bahia Railway, and with the lines of the narrow-gauge system feeding the Central of Brazil system, there will be completed for the time being the system of interior railways planned.

The President states that 53 miles of the Madeira-Mamoré line have been completed, and that by the end of the year 108 miles, or half the entire line, will have been completed. The great trunk line across the country to Corumbá, in Mattó Grosso, already has 211 miles in operation and an additional 162 miles nearing completion. The message reviews in considerable detail the work on the smaller branch roads and parts of systems, reporting substantial results in almost every case.

Particular attention is called to the fact that the Central of Brazil Railway, the great government system serving most of the more populous portions of the central coast country, has been extended to the River São Francisco at a point 621 miles from Rio de Janeiro. The Government regards this as one of the most important works which has been accomplished for some time, as this line opens up railway connection with the river traffic on the São Francisco River. This river, though separated from the coast country commercially by falls, is a great natural artery for the building up of a trade of immense economic importance. The railway line runs along the São Francisco Valley for some distance, and branches are projected which will connect the principal towns of northern Minas Geraes with the main system and with the river.

By a decree of December 2, 1909, the Sapucahy Railway Company was authorized to incorporate the Minas and Rio and Muzambinho railways with its lines, thus forming a system for southern Minas. A company was organized for this purpose known as the Southern Minas Federal Railways Company. The contract provides for the construction of the following branches and extensions: The extension of the line from Monte Bello to São Sebastiao do Paraíso, to be finished by December 31, 1911; the Passos branch, to be finished by December 31, 1913; the Lavras branch, to be finished by December 31, 1912; the branch lines from Capanha to a point on the Sapucahy River and from Alferes to Machado.

BRAZIL'S 32,000-TON DREADNOUGHT.

According to the news columns of the New York daily papers the new battle ship *Rio Janeiro*, which is being built by a British firm of shipbuilders for the Brazilian Government, is, so far as known, the largest battle ship under construction.

This new vessel will be 655 feet in length, with a beam of 92 feet. She will have a draft of 28 feet, will displace 32,000 tons, and her armament will consist of twelve 14-inch guns, fourteen 6-inch guns, fourteen 4-inch guns, three 6-pounder landing guns, six machine automatic guns, and three 18-inch torpedo tubes under water. The machinery will be of the improved turbine type, driving four screw propellers which give a speed of $22\frac{1}{2}$ knots. The contract with the shipbuilding company calls for the construction of the battle ship for approximately \$14,500,000.

The *Rio Janeiro* will be almost twice the size of the original *Dreadnought*, which displaced about 17,500 tons. Great Britain's largest warship, the *Lion*, which is to be launched in August, has a displacement of only 26,000 tons.

THE IRON INDUSTRY.

That the Government of Brazil is ready to grant liberal concessions to facilitate the establishment of the iron industry in the Republic may be gathered from the following announcement by President PEÇANHA:

Consideration has been given to several proposals which have been made to the Government for the establishment of the iron industry, and it has been decided to make general provisions relative thereto. To establishments which shall undertake to operate furnaces for the smelting of iron ore, with facilities for the reduction and refining of the same and machinery adapted to production of plates, rods, and various iron and steel products, the following concessions will be granted, with special privilege to none: Reduction of freight rates on federal railroads for raw and manufactured products on the bases of the following: Coal, coke, and other materials destined for use in ore reduction and iron working shall pay 8 reis per ton-kilometer, or about 0.4 cent per ton-mile; pig iron in bars and ingots shall pay 12 reis per ton-kilometer, or about 0.6 cent per ton-mile; iron or steel in a manufactured or partially manufactured state shall be given a rate of 14 reis per ton-kilometer, or about 0.7 cent per ton-mile; exemption from consumption taxes and charges for dispatching through customs for all machinery and apparatus and for necessary materials for use in such establishments; privilege of constructing quays, bridges, docks, and other apparatus necessary for the handling of ore and other material going to or from the establishments; reduction of dock charges for ore and coal; privileges for building connecting spurs or switches from the mines or furnaces to any federal railroad; and special facilities for the transfer of materials in transit from a railroad of one gage to one of another.

The Government claims the right to insist upon the installation of special equipment for supplying armament and naval equipment and to fiscalize the establishments temporarily. Time limits for the installation and equipment of these establishments and the minimum amount of production in each case will be determined in accordance with the needs of each case and with local conditions.

In view of the vast coal and iron ore deposits which exist in the Republic and the cheap rail and water transportation rates which are offered by Brazil's splendid system of railways and waterways, it is safe to assert that never before were more tempting inducements offered to capitalists who wish to receive handsome industrial profits from their investments.

THE LUMBER TRADE.

Statistics of the lumber trade of Brazil for the calendar year 1909 show that the importations of this product into Brazil were valued at \$1,991,685, of which total \$1,563,017 represented pine.

Of these amounts the United States furnished \$1,401,234 and \$1,354,000, respectively. While there was a slight increase in 1909 over the previous year, it is doubtful if this represents more than a return to the average imports. The principal lumber developments in Brazil are in the pine tracts of the States of Parana and Santa Catharina and the somewhat uncertain shipments of rosewood. About half of the Parana pine production is exported to Argentina and Uruguay. The value of the output in the Parana district in-

creased from \$148,190 in 1904 to \$690,725 in 1909, but the cost of production is too great to admit of its wide use at present. In spite of the strong demand for rosewood in the United States and Europe exports have fallen off, chiefly because of the cost and difficulty of getting the logs out of the Brazilian forests. Until the trade can be developed along more modern lines there will be little increase in shipments.

THE COTTON INDUSTRY IN BRAZIL.

The Brazilian Minister of Agriculture has made arrangements to send to the United States a well-known specialist in cotton growing for the purpose of visiting the States of the South which are most extensively engaged in this industry, and thus gain at first hand a practical knowledge of the most advanced American methods of culture. It is also the intention of the Minister of Agriculture to engage American experts to go to Brazil to further cotton cultivation in that country.

In this connection United States Vice-Consul-General SLECHTA, of Rio de Janeiro, reports:

Very strong representations have been made to the Minister of Agriculture by influential men of the cotton-growing States of northern Brazil, tending to demonstrate that if scientific training of cotton growers be given, the cotton production would be greatly increased. Large areas of northern Brazil have as their only source of wealth the products of the cotton fields, and with the development which is sure to come with modern methods of culture cotton growing would become the third greatest industry of Brazil.

The expert is to give special attention to irrigation as used in cotton growing, inasmuch as some of the best cotton lands of Brazil require irrigation to obtain the best results. In view of the fact that Brazil is a country which possesses lands capable of cotton production on an enormous scale, this is considered a step of great economical importance to the future agricultural development of the country.

RAILWAY CONCESSIONS.

The following information as to the methods pursued by the Brazilian Government in granting railway concessions should be of especial interest to American capitalists who are looking for foreign industrial investments. This information is taken from the closing paragraphs of a recent report made by Consul-General G. E. ANDERSON, of Rio de Janeiro, to the State Department of the United States.

After a comprehensive review of the work accomplished during the past year in the way of railway construction, Mr. ANDERSON states that most of these lines were constructed by the Federal Government of Brazil or under concession from the Federal Government:

Various contracts have been made for the various roads or systems, but in general the principle followed in the construction of most of them has been the payment for construction by government bonds issued for the purpose, the contract with the con-

cessionaires providing that the roads when operated shall have all net earnings first applied to the payment of interest on and for the amortization of such bonds, the excess, if any, to go to the concessionaires as profit. Generally the concessionaires take a contract for financing the road, for its construction, and for its operation for a fixed period. Most of the contracts provide for a limit of the cost of construction per unit (kilometer), bonds being issued at an agreed rate for the actual cost up to that limit.

It is to be noted, however, that "contracts for such work are made by the Government only with Brazilian concerns or foreign firms domiciled and authorized to do business in Brazil. There is an immense amount of such work being done in Brazil at the present time and an immense amount of it in prospect, but no American interests can expect to do anything in this line without Brazilian agencies."

EXPLOITATION OF MINERALS IN MINAS GERAES.

A Brazilian correspondent of "The Economist" of London furnishes the following information concerning the exploitation of minerals in the State of Minas Geraes, Brazil:

Only a few years after the discovery of Brazil part of the enormous territory in the interior, known to-day as the State of Minas Geraes, became famous for its wealth in gold and precious stones, which were found with comparative ease. The attention of adventurers was naturally attracted to this "El Dorado," and for many years an exceedingly lucrative trade was carried on; in fact, for the first century at least of Brazilian colonization it may be said that the settlers of Minas Geraes devoted their entire energies to the extraction of this mineral wealth.

The correspondent further states that the old mining methods which hitherto prevailed in many parts of the State have given place to modern methods and modern machinery. The importance of the gold-mining industry of this State may be seen from the following official figures of the total exports of bar gold from Brazil in recent years, most of which comes from Minas Geraes fields:

	Grams.
1905.....	3, 878, 698
1906.....	4, 547, 940
1907.....	3, 779, 839
1908.....	4, 165, 017

The real mineral wealth of Minas, it is stated, consists not so much in its gold and precious stones as in its iron and manganese ores, considerable deposits of which have been discovered in recent times. These mines have not yet been developed on account of the lack of any cheap method of transportation. This handicap will, however, only exist for a short time, owing to the progressive enterprise of the Government in building railways itself and in granting concessions for their construction to reliable contractors.

In 1905 the exports of iron ore amounted to only 3,280 kilos, but in 1908 they had increased to 89,560 kilos. The total clearings of manganese in 1905 amounted to 224,377 tons; in 1906, 121,331 tons; in 1907, 236,778 tons; and in 1908, 166,122 tons.

FOREIGN TRADE, FIRST QUARTER OF 1910.

The Daily Consular and Trade Reports published by the Bureau of Manufactures furnishes the following information concerning the foreign trade of Brazil for the first quarter of 1910:

There has been a very large decrease in exports with which the foreign obligations of the country's trade are met, but that decrease has been prevented from assuming alarming proportions by the continued high price of rubber. By reason of the limitation of shipments from the State of Sao Paulo, the exports of coffee have fallen off about \$30,000,000 as compared with the exports of coffee for the first three months of 1909, although the export limitation was in effect at that time as well. This great decrease, however, has been more than counterbalanced by the increased value of rubber shipped. The 13,295 metric tons of rubber exported during the first quarter of 1909 amounted to \$26,001,841, while the 14,607 tons exported in the same period of 1910 amounted to \$47,244,050, the most remarkable record in rubber values for such an amount of the crude material ever made. There was also a very large increase in the exports of sugar and cotton, the exports representing excess supplies put upon the world's markets for whatever they would bring. The steady growth in the trade in herva matte with countries to the south of Brazil is indicated in the returns of exports of that commodity. All other materials show decreases.

The following statement shows the exports of the leading products during the first three months of 1908, 1909, and 1910:

Article.	1908.	1909.	1910.
Coffee.....	\$27,843,727	\$39,767,106	\$9,134,798
Rubber.....	16,700,228	26,001,841	47,244,050
Tobacco.....	675,453	2,887,108	1,980,221
Sugar.....	86,858	641,326	1,468,298
Herva matte.....	1,485,673	1,507,694	1,787,270
Cacao.....	3,152,113	2,118,683	1,708,430
Cotton.....	561,928	292,018	1,345,918
Hides.....	1,659,923	2,073,660	1,850,425
Skins.....	688,788	1,262,643	1,251,415
All other articles.....	2,547,034	3,170,133	3,185,550
Total.....	55,401,725	79,702,212	70,956,375

The imports for the 1910 quarter were the largest for the same period of any year in the history of the country, amounting in value to \$51,374,569, against \$42,056,743 in 1909 and \$49,162,481 in 1908.

LEASE OF PORT QUAYS.

The contract for the lease of the port quays at Rio de Janeiro, which was awarded to Messrs. Daniel Henninger and Damart Company, was signed by the President of Brazil on June 9, and it is expected that the inauguration will take place early in July. The tenders for the lease of the quays were opened on April 27 last. Under the terms of the contract the lessee will receive 50 per cent of the gross revenues up to 3,000 contos (a conto, gold, equivalent to 1,000 milreis, or \$546 United States currency), 30 per cent for the first increase from 3,000 to 6,000 contos; 28 per cent for the second increase from 6,000 to 9,000 contos; and 27 per cent for the third

increase over 9,000 contos. The conditions in the call for tenders stated that the contract would be awarded to the party demanding the smallest average percentage on a gross annual revenue of 9,000 contos.

THE SÃO PAULO-RIO GRANDE RAILWAY COMPANY.

A presidential decree dated March 31, 1910, authorizes the revision of the contract with the São Paulo-Rio Grande Railway Company, and the transfer to this company of the lease of the Paraná and Thereza Christina Railways.

The São Paulo-Rio Grande Railway system will include the following lines:

1. The main line of the São Paulo-Rio Grande, from Itarare to the Uruguay River, together with its branches and connections.
2. The line from the Port of São Francisco to the Paraná River.
3. The Paraná Railway, extending from the Port of Paranaguá to Rio Negro.
4. The Thereza Christina Railway, which extends from a point in the vicinity of Tubarão, in the State of Santa Catharina, to Laguna and Imbituba, on the Atlantic.

Under the terms of the contract, the company promises to enter into such agreements as may be necessary to establish connection between the line extending from São Francisco to the Iguassú River and the Paraguayan system. It also promises to rebuild the line from Serrinha to Porto Amazonas, shortening the route and improving the technical conditions of the line; to establish connection with the Paraná Railway through Prudentópolis, and to make a reduction of 25 per cent in the present freight rates of this line.

Under the terms of the revised contract, the survey of the line from the port of São Francisco to the confluence of the Iguassú with the Paraná must be completed within eighteen months; the line must be completed as far as União da Victoria within three years, and the entire road completed within five years.

STREET RAILWAY ENTERPRISE.

The South Brazilian Railways Company, Limited, is the title of the English company which has recently been authorized by the Brazilian Government to operate in Brazil. The main object of the company is to acquire and operate the street railway in the city of Curitiba, in the State of Parana, but it proposes to acquire or lease other tramway lines and railways of Brazil. It will also manufacture and deal in automobiles, railway passenger and freight cars, launches, dirigible balloons, aeroplanes and other vehicles of transportation.

PUBLIC SERVICE COMPANY.

An English company known as the Municipality of Para Improvements Company, Limited, has been authorized to operate in Brazil. The main object of this corporation is to acquire the concession granted by the municipal government of Para for the construction and operation of the drainage system of that city. It will also build all kinds of water works, such as wells, reservoirs, water-power plants, cisterns, etc., and carry on any other kind of business which the company deems it advisable to undertake.

PROJECT FOR AN INTERNATIONAL EXPOSITION AT RIO DE JANEIRO IN 1915.

Mr. VICTOR MORLOT, representing an important group of French bankers and capitalists, has presented to the Brazilian Government a plan for the holding of an International Exposition at Rio de Janeiro in October, 1915, to celebrate the centennial of the elevation of Brazil to the dignity of a kingdom, and of the creation of a Department of Foreign Relations, the first in South America.

PROJECTED MINING LAW.

The projected law relating to mines and the mining industry, which has for some time been under preparation, has been submitted to the President for presentation to Congress. The proposed law is divided into 5 chapters and 39 articles. It will regulate mining property, exploration, and police protection of mines.

CREATION OF FISCAL AGENCIES.

A presidential decree, bearing date of April 22, 1910, authorizes the creation of fiscal agencies at São Borja, Itaqui, Uruguayana, Quarahy, Livramento, and Jaguarão, on the border of the State of Rio Grande do Sul.

SUBSIDY FOR PURCHASE OF PURE-BLOODED ANIMALS.

The Secretary of Agriculture has ordered the sum of 52 contos (approximately \$26,000) to be paid to the government of the State of São Paulo, to be applied to the purchase of pure-blooded stock for breeding purposes.

NEW INDUSTRIAL ENTERPRISES.

A decree of April 14, 1910, authorizes the Société des Abattoirs de Pará to operate in Brazil. This is a French company with a capital of 5,000,000 francs, which has for its main object the construction and operation of slaughterhouses at Belem (Pará) and the purchase and sale of raw material of all kinds.

An English mining company, known as the B. S. B. Syndicate, Limited, has recently been authorized to operate in Brazil.

NEW RAILWAY ENTERPRISES.

By an executive decree of March 31, 1910, an English company known as The Brazil Great Southern Railway Extensions, Limited, has been authorized to operate in Brazil. The company has for its objects the construction, purchase, and lease of railways in Brazil and neighboring countries, particularly the construction of a branch of the Brazil Great Southern Railway, from Itaqui to São Borja.

MODIFICATION OF CONSULAR SERVICE.

A decree of April 29, 1910, modifies the Brazilian Consular service. The consulates of London, Paris, and Iquitos, Peru, become first-class consulates, and the vice-consulates of Rosario de Santa Fé and Bremen become consulates. Brazilian vice-consulates have been created at Paysandú (Uruguay), at Corrientes (Argentina), at Funchal (Madeira), at Milan (Italy), and at Cobija (Bolivia). Chancellors are attached to the consulates-general of Buenos Aires, Montevideo, Antwerp, London, and Paris.

REPORT OF THE BANK OF BRAZIL FOR 1909.

The gross revenues of the Banco do Brasil for the year ending December 31, 1909, amounted to 13,701,972 milreis (\$6,850,986), as against 9,137,253 milreis (\$4,568,626) in 1908. Of the net profits, 1,967,045 milreis were applied to the payment of interest, 590,676 milreis, or 10 per cent, was added to the reserve fund, and 4,050,000 milreis was paid out in dividends, leaving a surplus of 2,598,997 milreis to be carried forward. The amount of the reserve fund on December 31, 1909, was 1,672,579 milreis, as against 1,081,902 milreis on December 31, 1908.

PREMIUMS FOR THE PREPARATION OF HAMS.

A presidential decree dated May 26, 1910, offers premiums for the preparation of hams, the consumption of which has increased enormously in recent years. The imports of hams in 1909 amounted to 492,944 kilos. The premiums to be awarded are of the value of 10, 5, 3, and 2 contos, and will be offered to persons who shall produce not less than 50,000 kilos of ham up to December 31 of the present year.

PROMULGATION OF BOUNDARY TREATIES.

The Brazilian Government approved on April 26 last the treaty concluded at Rio de Janeiro on October 30, 1909, between Brazil and Uruguay, modifying the frontier on Lake Merim and the Jaguarão River, and establishing rules for commerce and navigation in these waters.

The treaty concluded at Rio de Janeiro on September 8, 1909, between Brazil and Peru, completing the demarcation of the limits between the two countries and establishing general principles for trade and navigation on the Amazon, was promulgated May 2, 1910.

MONUMENT TO JOAQUIM NABUCO.

A monument is to be erected in Rio de Janeiro in memory of JOAQUIM NABUCO. Foreign as well as national sculptors will be invited to compete. The monument will represent JOAQUIM NABUCO as a propagandist of the abolition of slavery.

WATER-POWER FRANCHISE.

The Federal Government has granted a franchise to the Brazilian Electric Power Company for the use of the water power of Tymbora, Gamelleira, and Bananeiras Falls, in the Paraguassú River, State of Bahia.

RIVER NAVIGATION SERVICE.

A navigation service has been established on the Pardo River, as far as Jacarandá, in the State of Bahia. This service will give market facilities to a very rich and extensive territory.

AUTOMOBILE SERVICE AT SÃO PAULO.

An automobile freight and passenger service is shortly to be established at São Paulo. An order for 15 automobiles has been placed with French and Belgian firms.



THE NITRATE INDUSTRY.

The nitrate production of Chile during the calendar year 1909 exceeded by over 3,000,000 tons the production for any previous year. This increased production was mainly brought about by the fact that agriculturists are now more generally recognizing that in order to conserve the natural fertility of their land and to make each acre produce to its full economic capacity, the use of a good fertilizer is indispensable. That the steady increase in the world's consumption of nitrate during the last eighty years will continue according to well-known economic laws in the future is incontrovertible. The more recently exploited agricultural countries have hitherto depended almost entirely on the natural fertility of the soil, and little effort has

been made to increase its productive capacity. By these improvident methods of farming the soils have been gradually exhausted or rendered sterile to such an extent as to make impossible their profitable cultivation unless adequately fertilized. New fields for the use of nitrate are being found, and it is stated, on what appears to be reliable authority, that American agriculturists are beginning to recognize the superior advantages of nitrate for improving the fertility of the soil, with a view to securing an increased production per acre, while it is asserted that experiments have demonstrated that nitrate of soda is most beneficial to the growth of a number of agricultural plants in the culture of which it has not yet been used. For instance, it is stated that it is most useful as a fertilizer in the cultivation of tea, tobacco, sugar, and rubber. Agriculture is to-day the most vital industry in the world. Anything that improves agriculture must increase in importance just as fast as this great basic industry does itself. In order to feed the world, given areas must produce more; in order to produce more, they must be fertilized. This fact is not lacking in encouragement to a great fertilizer-producing country like Chile.

During January and February of 1910 the production of nitrate increased 2,818,000 Spanish quintals above the amount produced during the same period of the preceding year. During the year 1909 a large amount of United States capital was invested in the nitrate business in Chile, and some valuable properties taken over. It is reported that there is a good opening for further investments of capital from the United States in the nitrate fields at this time.

The United States during the last calendar year bought nitrate from Chile to the value of \$18,769,235 against \$14,765,249 in 1908, as is shown by the declared exports reported by United States consular officers in Chile.

The increase of consumption of nitrate has been very rapid, as may be seen by a glance at the following table, showing the decennial increases in the world's consumption, almost all the nitrate in the world being produced in Chile:

	Tons.
1831.....	100
1850.....	20, 000
1870.....	100, 000
1880.....	230, 000
1890.....	729, 000
1900.....	1, 269, 000
1910.....	1, 836, 000

THE NEW CABINET.

The new Chilean Cabinet is composed of the following members: Minister of the Interior, Mr. AUGUSTIN EDWARDS; Minister of Foreign Affairs, Mr. LOUIS EDWARDS IZQUIERDO; Minister of Finance, Mr

CHARLES BALMACEDA; Minister of Justice and Public Instruction, Mr. EMILIANO FIGUEROA; Minister of War and Navy, Mr. CHARLES LARRAIN CLARO; Minister of Public Works, Mr. PIDEL MUNOZ RODRIGUEZ.

FINANCIAL AND BUSINESS CONDITIONS.

The Report of the Board of Directors of the *Banco Aleman Transatlantico* for the calendar year 1909 contains the following data concerning financial and business conditions in Chile:

The manufacture of artificial nitrate has made considerable progress. Nevertheless, up to this time the quantities produced have not been of sufficient volume, when taken in consideration with the total consumption of fertilizers which have nitrate for a basis, as to materially affect the market for Chilean nitrate. The production of Chilean copper continues under normal conditions, nor has there been any important change in previous prices, which have averaged about £60 per ton. The farmers have had a very prosperous year, the prospects for the new crop being most satisfactory. The prices of farm products have continued to be quite remunerative. In accord with the economic situation, business transactions in northern Chile—that is, in the nitrate region—have been quiet, while in central and southern Chile, where commerce depends upon the success of rural industries, business has been active.

NEW STEAMSHIP SERVICE.

The Pacific Steam Navigation Company has established a line of rapid steamers between Chilean ports and Panama. Passage rates on the new line have been reduced by 50 per cent. The steamers on this run have been fitted up with all modern conveniences. The service was inaugurated by the twin-screw steamer *Ortega*, of 10,000 tons burden. The voyage between Valparaiso and Callao will be accomplished in five days, and that from Callao to Panama in six days.

UNITED STATES FIRMS NEGLECT OPPORTUNITY.

In announcing that bids were to be opened on June 15 for the electrification of the first section of the Chilean State Railway, Vice-Consul CHARLES F. BAKER, of Valparaiso, says that two European houses were practically the only bidders. The late President MONTE, of the Republic, made inquiry as to whether firms of the United States were going to submit proposals, but the vice-consul says none made studies of the proposition. .

DEPOSITS IN THE SAVINGS BANKS.

The following data, taken from a report made by the director of the Savings Bank of Concepcion, shows that the institution of savings banks has been productive of much good in encouraging the people to save their surplus earnings:

In 1909 there were in Chile 11 savings banks, situated in the following cities: Santiago, Valparaiso, Concepcion, Iquique, Antofagasta, Chillan, Talca, Serena, Valdivia,

Temuco, and Curico. The total deposits of these banks amounted to \$27,277,981, distributed among 243,781 depositors. There are, moreover, 73 agencies, with 24,508 accounts and with deposits aggregating \$2,859,983.

The development of this institution is illustrated by the fact that in all the banks of this character, with the exception of the one in Santiago, the amount paid out to employees for salaries amounts to \$497,278. The salaries paid to employees in Santiago aggregate \$103,798. The subsidy granted by the Government to these banks in 1909 was 485,000 pesos. The expenses of all the banks, excluding that of the capital city, were \$539,331. The net surplus, after deducting the excess of expenses above the subvention, was \$268,101. The estimate for this year, excepting Santiago, and including Tacna and San Felipe, amounts to \$597,131.

CONSULAR NOTES.

The Government has appropriated \$20,000 (American currency) for irrigation in the Province of Tacna.

The Navy Department has just placed an order for 10,000 tons of Chilean coal at about \$5 United States gold per ton.

Government bonds are soon to be put on the local market to the amount \$12,600,000 for reconstructing the town of Valdivia and for the prosecution of work on the Arica-La Paz Railroad.

The tanning industries in Valdivia and vicinity are closed, which is materially affecting business in southern Chile. The shutting down is attributed to the recently enacted tariff laws of Germany, where the greater part of the products of the tannery went.



INAUGURATION OF PRESIDENT AND APPOINTMENT OF CABINET OFFICERS.

According to an Associated Press dispatch the new administration and Cabinet of Colombia began their duties on August 8, 1910, the inauguration of the President having taken place the day before. The new President of the Republic, His Excellency CARLOS E. RESTREPO, formerly Vice-President of the Colombian House of Representatives, upon the occasion of his inauguration announced as his Cabinet the following ministers: Prime Minister, with the portfolio of Minister of the Interior, LUIS FELIPE CAMPO; Minister of Foreign Affairs, ENRIQUE OLAYA HERRERA; Minister of Finance, TOMAS EASTMAN; Minister of War, JUAN B. VALENCIA; Minister of Public Instruction, MARIANO OSPINA; Minister of Public Works, ELOY PAREJA; Minister of the Treasury, JERONIMO MARTINEZ.

President RESTREPO, who was elected July 15, succeeds Gen. RAMON GONZALEZ-VALENCIA, who was chosen to fill the unexpired term of President RAFAEL REYES. The new President is from the Department of Antioquia.

INAUGURATION OF THE WAR COLLEGE IN BOGOTA.

The dedication of the new War College of Colombia took place recently in Bogota amid impressive ceremonies, in which high officials of the Government and dignitaries of the church assisted. The Right Reverend Archbishop pronounced the dedicatory blessing.

NEW TRAMWAY SERVICE.

According to the "Correo del Cauca" of July 5, 1910, a new tramway service has been inaugurated between the cities of Cauca and Puerto-España on the Rio Cauca. This is only one of the many public works which has been thrown open by the department and municipality in celebration of Colombia's centenary.

THE COFFEE INDUSTRY.

A very interesting and instructive article on the coffee-growing industry of Colombia appeared in the May, 1910, issue of the "Spice Mill," of New York, a monthly magazine devoted to the interests of the tea, coffee, and spice trade. The article in question is well worth reproduction in its entirety, but on account of lack of space is summarized as follows:

Colombia is one of the largest coffee-producing countries of Latin America. The favorable geographical situation of Colombia, which gives the country a frontage on both the Pacific and Atlantic oceans, permits of easy access to the great world markets. The economic importance of the coffee industry in the future development of the country can hardly be overrated. The production of coffee has been steadily increasing, as is shown by the figures for the last three years. In 1907 Colombia's exports to the United States amounted to 341,685 bags of coffee; in 1908, 416,377 bags; while in 1909 the exports of this product to the United States aggregated 440,000 bags.

Different grades of Colombian coffee during the past year sold at prices ranging from 13 to 14 cents per pound.

If the different varieties of Colombian coffees were better known throughout the United States the supply would not be sufficient to satisfy the demand, although Colombia could easily produce twenty times its present output. The distinctive flavor and energizing qualities of the best brands of Colombian coffees entitle them to high rank among the mild coffees.

The type that goes under the generic name of "Bogota" is justly famous for its exquisitely delicate flavor, which makes it a most

delightful beverage. The coffee bean of this brand is very compact and when roasted is of a very even and handsome color. Moreover, "Bogotas" are generally free from "quakers," and when carefully roasted and prepared for the table are deemed by many to be superior to the famous Java and Mocha brands.

Other brands of Colombian coffee which rank very high and for which there is great demand in the markets are those which come from the Cauca, Tolima, and the hill plantations of Antioquia. The last-named brand is especially in demand and often sells at a high premium over all other varieties, because they fill a demand no other brand can satisfy.

CREATION OF ARBITRATION TRIBUNAL.

The representatives of Colombia and Peru have signed, at Bogota, a convention constituting an arbitration tribunal, with its seat at Rio de Janeiro, with a view to the solution of the disputed frontier on the Rio Caqueta or Japura River. The president of this tribunal will be Baron RIO BRANCO.



INAUGURATION OF PRESIDENT JIMENEZ AND APPOINTMENT OF THE NEW CABINET.

The new Cabinet of Señor Don RICARDO JIMENEZ, who was inaugurated as President on May 8, 1910, is composed of the following members: Minister of Foreign Affairs, Mr. MANUEL CASTRO QUESADA; Minister of Government and Police, Mr. CARLOS MARIA JIMENEZ ORTIZ; Minister of Public Instruction, War, and Navy, Mr. NICOLAS OREAMUNO; Minister of Treasury and Commerce, Mr. FELIPE J. ALVARADO; Subsecretary of Public Works, Mr. ENRIQUE JIMENEZ NUNEZ.

PROSPECTIVE MARKET FOR BEEF CATTLE.

It is reported from Puerto Cortes that a large cattle raiser and dealer on the northern coast of Honduras has returned from a tour over the principal parts of Costa Rica, where he reports a very good market for beef cattle. It is said that he has concluded some very advantageous contracts and will commence shipping beeves from Puerto Cortes to Port Limon just as soon as the steamship transportation could be arranged. He expects, it is stated, when the trade is fully organized, to ship some 400 to 500 beeves every twenty to twenty-five days.



MILLION-DOLLAR PALACE FOR CUBA'S PRESIDENTS.

If cost means anything, the new million-dollar home for the present and future Presidents of Cuba will add greatly to the architectural beauty of the capital city. The best architects in the United States and Europe will be asked to compete in the submission of plans, and an attractive prize will be given to the architect furnishing the best set.

The secretary of the commission which has charge of the designing and construction of the new buildings made the following statement to a representative of the "Havana Daily Post:"

The commission will give out a general idea of the structure and then leave it to the competing architects to work out the details. There will be a prize offered for the best set of plans, and this will be of sufficient amount to attract the best architects. There is now available \$550,000 and a certain amount will be set aside every month from the lottery until the sum of \$1,000,000 is reached, and this will go into the building. There was no provision made for a lot upon which to erect the palace, and it will undoubtedly go on state property. We will commence to formulate the specifications next Monday.

MAGNIFICENT NEW HIGH SCHOOL BUILDING FOR HAVANA.

Within a short time there will be erected in Havana a splendid new high school building at a cost of \$300,000. Havana already has a university modeled on the European system, which has long been famous on account of the great attainments and research work of its professors and instructors. The new high school is in the nature of a valuable concession to that portion of the people of Havana who have not the means or the time to acquire a professional education but who realize the immense practical benefits to be obtained from a high school training.

TOBACCO AND SUGAR EXPORTS, 1909.

"Cuba Mercantil Industrial" furnishes the following detailed statement relative to the tobacco and sugar exported from Cuba during the calendar year 1909:

Tobacco.....	barrels..	1,440
Tobacco, leaf.....	bundles..	341,702
Tobacco, smoking (picadura).....	kilos..	260,046
Tobacco sticks.....	do....	1,891,289
Cigars.....		181,000,000
Cigarettes.....	packages..	10,663,550
Sugar.....	tons..	1,464,261
		529

MARTI TO BAYAMO RAILWAY OPENED.

"La Lucha" in its issue of July 15 announced the opening of the new branch line of the Cuba Railway from Marti to Bayamo and Manzanillo. This line is now in operation for the transportation of both freight and passengers. The opening day was generally celebrated throughout the district traversed by the new road on account of the important part it is expected to play in developing a section which contains some of the best land in Cuba.

TARIFF MODIFICATIONS.

Minister JOHN B. JACKSON reports from Havana that a bill is now under consideration in the Cuban House of Representatives amending Tariff No. 271, so as to read:

Vegetables and legumes, pickled or preserved in any manner: (a) In drums, 10.833 per cent ad valorem. (b) In tins, bottles, casks, bushel, half-bushel, and quarter-bushel kegs, or other similar containers, net 32.5 per cent ad valorem.

Under the present tariff, preserved vegetables packed in any manner are dutiable at 32½ per cent ad valorem, with a reduction of 30 per cent of the duty on imports from the United States.

The object of the measure is stated to be the protection of a new industry, "which promises to give employment to large numbers of workers." If the bill passes, olives can be imported in bulk (drums) at a reduced rate, and it will pay to establish factories to pack them here, as they are now packed elsewhere, in tins, glass, or kegs, in accordance with the local demand.

ORGANIZATION OF CUBAN FRUIT GROWERS.

From Havana, Consul-General JAMES L. RODGERS reports that active efforts, under the auspices of the Cuban Horticultural Society (composed mostly of Americans), are being made to form an organization for extending the market for Cuban fruits, especially citrus fruits. The discouragements of high freight rates, many handling charges, and foreign duties must be met; and the expansion of the local market seems, in the opinion of the majority, the most necessary thing to be accomplished. The organization has not taken definite shape, but will probably assume shape next autumn.

THE SISAL INDUSTRY.

A valuable article on the "Sisal Industry in Cuba" was published in "Las Novedades" of June 16, 1910. From this article it would now seem that considerable importance is attached to the success of recent enterprises engaged in the cultivation of the sisal plant in Cuba. It is stated that several American residents of the island who

have had the time and opportunity to study the conditions essential to the successful growing of the plant deem the experiments which are being carried on as of the greatest significance.

One of the largest experimental plantations for the cultivation of this plant belongs to the Houston Brothers, whose property is situated in the center of the island. On this plantation there are now some 50,000 healthy plants growing up under the supervision of an experienced henequen grower.

A feature of the industry of no little economic importance is the fact that the plant thrives on the poorest quality of ground, and the further fact that the preparation of the soil for its cultivation involves no work other than the removal of the decayed stalks of the plants with which the fields were previously planted. These two facts when taken in connection show that should the industry be successfully established in the island, and there is every indication that such will be the case, it will offer the very best opportunity possible for investment.

Touching upon the cultivation and other general aspects of the industry, the article states: The sole care of the sisal plant consists in the planting, weeding, and finally after several years of growth, making the first cutting of the leaves. After this period annual and semi-annual cuttings are made, the under leaves being the ones removed. One or more tiers or rings of leaves are cut each year. The life of the plant is on an average about fifteen years, at the end of which time it sends up a lofty shoot, flowers at the top, and then dies.

Tourists to Cuba are advised to visit some of the experimental plantations, as only in this way can they gain an adequate idea of an industry which is likely to become an important factor in the economic development of the island. The study of the periods of growth during which the green cactus-like leaves turn into bales of white, tough fiber is of the greatest interest. Sisal planters make a point of having their fields in all stages of growth, so that a regular cycle of planting, maturing, and cutting is constantly taking place.

A well-equipped sisal plantation is supplied with power, narrow-gauge railroads, fiber separating and cleaning machinery, steam driven crushers for mashing the pulp, and other devices used in the preparation of the product for the market.

After the pulp or vegetable matter is removed, the wet mass of stringy fiber is then combed and spread out to dry in the open air. The fibers thus obtained average about 3 feet in length and the raw product when pressed into bales is ready for shipment. The fiber is shipped to large manufacturing plants in the United States and Europe, where it is made into binder twine used by the farmers in binding their wheat, oats, and barley or corn into shocks. It is also

used extensively for ropes, the fiber being of exceptional strength and well adapted to that purpose.

The promising outlook of this new industry in Cuba is most encouraging and there is every reason to believe that in a short time the export of sisal fiber will greatly increase the purchasing power of the Republic in foreign countries.

DOMINICAN REPUBLIC

HARBOR IMPROVEMENTS, SANTO DOMINGO.

The Minister of Finance and Commerce of the Dominican Republic has signed a contract with the Snare & Triest Company of New York for the improvement of the harbor of Santo Domingo by the construction of about 1,000 lineal feet of cement bulkhead or jetty on the east side of the port. This will be the first step in a general scheme of improvement which includes the dredging of the harbor and the main channel to the sea. Ample modern dock facilities, it is stated, will also be provided.

The estimated cost of the first section of the port improvements is \$122,000, while the remainder of the work which has been divided up into three sections and contracts for which have not yet been awarded call for an expenditure of \$158,000.

SUGAR PRODUCTION.

The following statistics concerning the sugar output of the Dominican Republic are furnished by Consul-General HORACE G. KNOWLES, of Santo Domingo:

The total production of sugar this season in the 6 estates in the Macoris district is conservatively estimated at 500,000 bags of 320 pounds each, which is 70,000 bags more than last year and 120,000 more than the average for the last five years. This large output is of much significance because of the prevailing high price of raw sugar. The price now in England is \$4.80 per 100 pounds, compared with \$4.05 last year, and \$4.45 in the United States, compared with \$3.70 last year. Owing to the higher price in England, nearly all of this year's crop is being shipped thereto, and the value of the crop when marketed there will amount to \$7,680,000, which represents about 60 per cent of the \$12,500,000 estimated to be invested in the 6 sugar properties at Macoris. It is said that the present high price of sugar is due to the partial failure of the European sugar-beet crop.

The climate, rain precipitation, and soil of the southeastern section of the Dominican Republic are said to make that section the best in the world for the cultivation of sugar cane and the production of raw sugar. The owners of the properties at Macoris are now installing more modern machinery in their mills, not only to increase the output but to decrease the cost of production.

The 6 estates in that district are owned by stock companies incorporated in the United States, although some of the largest stockholders do not reside therein.

TRADE OPPORTUNITIES.

A favorable opportunity for trade is offered to American manufacturers of concrete and concrete-mixing machinery by a recent enactment of the Dominican National Congress which favors an extended use of reenforced concrete by reducing the duty on cement from 78 cents per barrel to 10 cents per 220 pounds, and the duty on structural iron and steel to \$1 per 220 pounds. In view of this important change in this schedule, there should be a large increase in the importations of these products.

**RAILWAY CONCESSIONS AND PUBLIC WORKS.**

Recent issues of the "Registro Oficial" contain the following Presidential decrees:

A decree authorizing contracts with Mr. MAURICIO BLAISE, acting on behalf of the "Compañía Francesa de Ferrocarriles de Ecuador," for the construction of branch lines of the Bahia de Caraquez-Quito Railway, viz, (1) from Calceta to the neighborhood of Chone, and (2) from a point on the main line across the river Daule to Guayaquil.

A decree authorizing the making of a contract with Messrs. EDUARDO MORLEY and Dr. RELLE GAGE for the construction of a railway from Pasaje by way of Cuenca and Azogues to Biblian, the repairing of the railway from Pasaje to Puerto Bolivar, and the construction of wharves at the latter place.

NEW LAW RELATIVE TO FOREIGN COMPANIES DOING BUSINESS IN ECUADOR.

A new law of Ecuador, which went into effect May 18, is summarized by Consul-General HERMAN R. DIETRICH, of Guayaquil, as follows:

Every foreign company which desires to do business in Ecuador must have a legally constituted representative in the country, holding full power and authority to answer all claims and to pay the debts or obligations of the company. In case the representative of a company transacts business without having such power of attorney, he will be held personally responsible for the claims and obligations of the company.

No life, fire, or marine insurance company, nor branch office or agency of such companies, may be established in the country without first registering their respective deeds of association in due form, and also the power of attorney conferred by the company upon its agent or representative. This power of attorney must be in legal form and give full authority to arrange, judicially or otherwise, all claims against the company. In the act of registration the company must state the amount or such part

of its capital as it may desire to dedicate to business in Ecuador. For the establishment of a life or marine insurance branch or agency, the capital dedicated to business in Ecuador may not be less than \$50,000, and for fire insurance companies not less than \$500,000, and the fiscal rates and taxes must be paid upon this capital. The company will also be under obligation to invest 25 per cent of its declared capital in freehold property in Ecuador, or in shares of public companies, or in bonds of mortgage banks (exclusively banks and companies of the country) or in Ecuadoran gold. Such shares or bonds or gold must be deposited in one of the banks of Guayaquil. The deposit must be made within six months from the date of the promulgation of the law.

GUATEMALA

SOCIAL AND ECONOMIC DEVELOPMENT.

A very entertaining and instructive lecture, descriptive of Guatemala's social and economic development, was recently delivered at the City of London College, by the Chancellor of the Consulate-General for Guatemala in London. The use of 100 lantern slides added greatly to the interest of the lecture and allowed the audience to get a realistic idea of the rapid development which has recently taken place within the Republic. The "Guatemalan Review" of London, in writing of the lecture, states that the climate of Guatemala is that of perpetual spring, the year being divided into the dry and rainy seasons. The country may be said to consist of three zones, that is, the coastal region where high temperatures prevail, and the high levels or hill country, which are situated from 2,000 to 5,000 feet above sea level, with a cool, temperate climate, and the still higher levels up to 6,000 feet above sea level, with a cold, dry, but remarkably healthy climate.

The public buildings in the various towns which were shown compare most favorably with those of European cities, while some very fine theaters and cathedrals have been erected. The electric lighting of the cities has been pushed with vigor, and it is claimed that Guatemala City is one of the best lighted cities in the world, while an elaborate system of street railways, which are shortly to be electrified, affords rapid communication with every part of the city and with neighboring places.

One of the most important projects which is shortly to be pushed to completion is that of linking up the railway system with that of other Central American States, which are to form an essential part of the Pan-American railway joining North and South America by bands of steel.

Europe is to have the opportunity of inspecting the productions of the country, as the Government completed arrangements for making a display at the International Exhibition, Brussels. Immigration on a large scale is desired by the Government in order to further the development and exploitation of the resources of the country.

THE GUATEMALAN EXHIBIT AT BRUSSELS.

The full text of President ESTRADA CABRERA's decree authorizing the participation of Guatemala in the International Exposition at Brussels in 1910 is as follows:

Whereas international exhibitions constitute one of the most efficacious means of making known the products of a country, as also of extending commercial relations; and in view of the fact that the exposition to be held in the capital of the Kingdom of Belgium from May to November, 1910, is a further opportunity for Guatemala to increase the good name already enjoyed by some of her products, and to bring under notice others which, though not at present articles of export, may in the near future become a source of wealth and prosperity to the country, either by creating a demand from abroad or by holding out inducements for the immigration of capitalists, manufacturers, or workingmen, who, on learning of the advantages to be obtained from their development, may decide to come here, and thus increase the factors of the national welfare; Now, therefore, in virtue of the powers invested in me I decree as follows:

ARTICLE 1. The invitation from the Government of His Majesty the King of the Belgians for Guatemala to take part in the International Exhibition at Brussels from May to November, 1910, is accepted.

ART. 2. Mr. EUGENIO THIERY, Vice-Consul of the Republic in Brussels, is appointed Commissioner-General and Delegate in Belgium.

ART. 3. The chief exhibits will be:

(a) The coffee and cocoa produced by the soil of Guatemala, according the public the most convenient means of tasting these articles; with this end in view proprietors of plantations are requested to forward plans and photographs of their estates and sufficient quantities of both articles for exhibition and sampling by the public.

(b) Products of the sugar cane suitable for export.

(c) Samples of such timber as is produced in sufficient quantity for export, in case of any demands.

(d) Samples of cereals and fruits, the cultivation of which on a large scale might provide articles for export able to compete in foreign markets with similar products from other sources.

(e) Samples of fibrous plants and their products, also of oil-producing plants and fruits.

(f) Collections of ores, suitably arranged, and a geological map of the Republic.

(g) A collection of medicinal plants, the curative properties of which have been thoroughly tested.

(h) A wall map of the Republic, showing clearly the different ways of communication.

(i) A planisphere showing the facilities for communication with foreign countries.

(j) Distribution of propagandist publications.

ART. 4. The carrying out of this decree shall be intrusted to the Secretary of State and Public Works, who shall submit a report to the National Legislative Assembly.



GREAT TRUNK RAILWAY FOR HAITI.

An Associated Press dispatch announces the ratification by the Haitian Senate of the railroad and plantation contracts submitted by an American syndicate of New York. This railroad will traverse the island for its entire length and thus constitute a great trunk line, from which branch lines will be built to open up the more fertile districts adjacent to the main line.

There has been widespread ignorance about agricultural opportunities in Haiti, but it seems safe to assert that the construction of this railway and the resulting opening up of thousands of acres of fertile land admirably adapted to the growth of all kinds of tropical fruits and vegetables will undoubtedly serve to bring this little-known Republic more prominently to the attention of the capitalistic and colonizing nations of the world.

Haiti produces great quantities of coffee, sugar cane, cacao, and cotton. Cheap land and cheap labor make all these branches of industry attractive and remunerative if undertaken on a large scale. In addition to animal and vegetable life, Haiti also occupies a high place in geologic wealth. Not only are there great deposits of gold, silver, iron, tin, etc., but also there is every indication that if capital could be induced to bore the wells, valuable petroleum deposits would be discovered which would produce untold wealth to the exploiters.

THE CEMENT TRADE.

A number of construction enterprises which will be undertaken in the Republic during 1910 will call for increased importations of cement and other necessary construction materials and machinery. Hitherto the United States furnished a great deal of the cement and structural material imported, and in this connection the United States Consul at Port au Prince urges American manufacturers and exporters to use the utmost care in the packing of these goods for export. In the handling of cement there is always a small loss, but it is suggested that if the cement be put up in paper sacks first, then in the regular cement sacks, and finally in the barrel, the loss occasioned by handling will be greatly diminished.

CONCESSIONS FOR THE CONSTRUCTION OF PUBLIC WORKS.

The concession for the construction and operation during a period of forty-two years of an electric plant in Port au Prince has been transferred to Mr. A. M. ARCHER of that city. The work of installing

the various electrical appliances is going on rapidly. Mr. ARCHER also has a contract for the building of a large reservoir in the plains, which when completed will furnish an abundance of water to irrigate an immense tract of land that only needs water to make it suitable for the growing of great quantities of agricultural products. It is stated that all of these plains were once intensively cultivated under the old French régime and produced sugar cane and other products in abundance. The production has gradually declined for want of irrigation during the dry season, but it is confidently expected that this whole area will be more productive than ever before when the present projects are brought to a successful conclusion.

HONDURAS

RAILWAY CONCESSION.

It is reported from Puerto Cortes that a field survey is now being made in connection with the concession which was granted for a railroad from Omoa to a point somewhere 60 miles inland, and that it seems probable that the road will be built within a reasonable time. The road will be routed through extensive pine forests, will furnish transportation for millions of feet of pine lumber, and will open up virgin banana lands. If properly conducted, the road should in the near future have sufficient fruit freight to make it more than self-sustaining, this without figuring on the wood exports which will be on a large scale, as, in addition to the pine forests, the road will go through large stands of mahogany, cedar, and other hard woods.

CONSULAR NOTES.

In submitting the following report, Consul DREW LINARD, of Ceiba, says that the London boom has given much impetus to the cultivation of rubber in that part of Honduras:

A private company, recently organized here, has obtained title to 3,000 acres of virgin land peculiarly adapted to the cultivation of rubber, and is now planting on a large scale. It is the intention of the company to prepare an additional area sufficient to cultivate several hundred thousand trees, transplanting from extensive nurseries as the land is prepared. There is no cultivated rubber now produced in this locality, but the demand for the wild "scrap" rubber, which thrives profusely and is gathered and sold by the Indians, has resulted in the local price advancing from 38 cents to \$1.33 gold per pound.

The fruit planters, realizing that the commercial demand for rubber far exceeds the world's supply, are evincing a strong tendency toward its cultivation as a permanent local development that may eventually result in this section of Honduras producing that article, to the gradual exclusion of the banana.

Consul ARMINIUS T. HAEBERLE, of Tegucigalpa, says that the Government of Honduras is making special efforts to extend the tobacco industry.

An experienced man has been appointed and is now conducting the experimental work at Danli. The new factory, which is in charge of Señor ANTONIO BRITO, turned out 27,000 cigars of fine flavor during the latter part of 1909, and the tobacco of the coming crop is expected to be still better. The soil is as good as Cuban, and two or three crops can be made in a year. The light-colored tobacco, or "claros," can be prepared without the use of "mantles" or covers, the tobacco thus having the advantage of ripening in the sun. These conditions are not restricted to one or two places, but are found in the Departments of Santa Rosa, Danli, Santa Barbara, Olancho, El Paraíso, Comayagua, Cicutepique, and many others.



THE CENTENNIAL CELEBRATION.

On September 15 next, the Republic of Mexico will begin to celebrate the first centenary of national independence. With reference to the history of the United States, the date which the Mexican people will commemorate in September corresponds rather to the Battle of Lexington than to Independence Day. It was on the 15th of September, 1810, that Don MIGUEL HIDALGO Y COSTILLA, parish priest of the little village of Dolores, in the present State of Guanajuato, placed himself at the head of a patriotic crusade which, after eleven years of warfare, resulted in the abandonment of the land which Cortez had won for Castillo.

The people of Mexico have much cause to rejoice not only on account of their hundred years' existence as a separate people, but also on account of the marvelous progress which has been made along more material lines. The advantages of a stable government have been demonstrated, life is safe, property is respected, and commercial opportunities are opening on every side.

President TAFT is sending to Mexico a special embassy to represent the United States. Mr. CURTIS GUILD, Jr., former Governor of Massachusetts, will head the party and represent President TAFT as special ambassador. The other delegates are Representative DAVID J. FOSTER, of Vermont; Senator LEE S. OVERMAN, of North Carolina; Senator SIMON GUGGENHEIM, of Colorado; Senator COE I. CRAWFORD, of South Dakota; Representative WILLIAM M. HOWARD, of

Georgia; Representative EDWIN DENBY, of Michigan; Judge JAMES W. GIRARD, of the Supreme Court of New York; Gen. HARRISON GRAY OTIS, of Los Angeles, Cal.; Mr. CHARLES ALEXANDER ROCK, of Pittsburg, and Mr. HOBART J. SHANLEY, of Vermont. Many of the delegates will be accompanied by members of their families.

Many other nations will send ambassadors and special commissioners as well as squadrons of war vessels to participate in the numerous festivities which are scheduled during the course of the celebrations.

The location of the exposition buildings and the objective point will be Puebla, a few hours' ride on the train out of Mexico City. The approach of the date for the opening of the great exposition has awakened a great deal of enthusiasm, and the executive committee in charge of the centennial estimates that half a million pesos, or \$250,000 United States currency, will be raised in the Capital City alone.

With the beginning of the last month before the centennial opens a spirit of general renovation seems to have taken possession of the city's population. The hotels are making great preparations to take care of the large crowd which is expected to arrive, and as the National Committee believes the crowd will be far greater than the hotels can accommodate, it has caused bills to be posted in the streets, asking residents that are willing to rent rooms during the exposition period to so advise the committee.

One of the centers of attractions for visitors and residents to the Mexican capital will be the great Arbeau Theater, where on the night of Thursday, September 8, a great company of artists of world-wide fame will appear in Verdi's masterpiece, ushering in the first season of grand opera in its truest and highest form. The company is made up of the finest singers of the Manhattan and Metropolitan opera houses of New York, with a chorus of 60 from the same houses, and scenery, costumes, and all the accessories for the occasion.

The Arbeau Theater is being practically reconstructed for the coming season of grand opera. The stage has been torn out and rebuilt on a much larger scale so that it can accommodate the scenery which will be brought direct from New York. The auditorium too has been completely gone over and has been finished in white and gold. So far as possible the theater has been transformed into a beautiful modern opera house.

Next year there will be another season at the Arbeau Theater, and in the following year the National Theater, one of the most magnificent opera houses ever constructed will have been completed, and then the City of Mexico will be indeed one of the greatest musical centers of the world.

THE COAL-MINING INDUSTRY.

"The Mining World" of July 9, 1910, contains an abstract of a very interesting and instructive paper read by Mr. EDWIN LUDLOW at the International Geological Congress.

Mr. LUDLOW states that there are at present three developed coal basins in the State of Coahuila, all of which are traversed by the Mexican National Railway. The first district lies something over 4 miles south of the town of Porfirio Diaz and is known by the name of "Bassin de Fuente." The second field is situated 72 miles south of the same town, and is called "Bassin de Sabinas." The third basin lies near the station of Barroteran, and is in communication with the main line of the railway by a 6-mile branch line.

The "Bassin de Fuente," according to surveys, has an area of about 20 square miles. It seems to be a small basin parallel to the coal deposit which extends along the Rio Grande, and which has been exploited at Eagle Pass and near Laredo, and which has been recognized and studied near the town of Mier, in the State of Tamaulipas.

The coal of the Fuente basin, as has been shown by analyses, contains a smaller amount of carboniferous slate and ash than the coal of the Eagle Pass and Laredo districts. This is illustrated by the following table of percentages:

	Laredo.	Fuente.	Eagle Pass.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Moisture.....	3.20	1.40	3.49
Volatile matter.....	37.45	39.40	36.87
Carbon.....	33.90	40.20	34.00
Ash.....	25.55	19.00	25.64

The high proportion of volatile matter it is said gives the Fuente coal a special value for roasting purposes and gas manufacture, inasmuch as it contains sufficient carbon to be employed for steam generation.

The Sabinas field, which lies along the Sabinas River, is 34 miles long by 15 miles wide; its general direction is northwest to southeast. The Sabinas coal is entirely different from that of Fuente; it is richer in carbon and consequently better for steaming, as is shown by the following analysis:

	<i>Per cent.</i>
Ash.....	14.60
Carbon.....	64.20
Volatile matter.....	21.20

The Sabinas coal, when well cleaned, gives a good coke. Though the basin extends over a vast surface the workable parts where the coal is thick enough and pure enough to be mined with profit rarely exceeds 2 square miles.

Under favorable conditions the coal varies from 4 feet 6 inches to 5 feet in thickness. The lower seam, which lies below the shale, is usually clean and measures from 20 to 24 inches. The coal which covers the shale and which is usually 24 inches thick is often mixed with ribbons of carboniferous slate, but which do not materially affect the purity of the coal or unduly increase its proportion of ash when shipped.

The Esperanzas coal field extends parallel to that of Sabinas, and is separated from it only by a line of hills about 2 miles long. The carboniferous deposits of this basin have been carefully studied and its exploitation at the southern extremity was begun in the autumn of 1899. The coal closely resembles that of the Sabinas basin, but its thickness is double, and in some places reaches 18 feet 6 inches, including a 12-inch layer of shale, which extends through the middle.

The Esperanzas field is 21 miles long by 3 miles broad. A sample of the coal, mined in pit No. 3, according to the rule formulated by the United States Geological Survey, and analyzed at the St. Louis Exposition of 1904, gave the following results:

Coal analysis.

	Per cent.
Moisture.....	0.42
Volatile matter.....	21.83
Carbon.....	69.84
Ash.....	7.91

An average sample of coke made with coal from these same mines, and taken at the same time, gave:

Coke analysis.

	Per cent.
Moisture.....	0.14
Volatile matter.....	.76
Carbon.....	85.95
Ash.....	13.15

This Mexican coal, when suitably prepared, is more than equal to the general average of American coal in heat units, which is the now generally accepted measure of a coal's value. While this coal can not be produced in large lumps, still it has yielded an excellent variety of nut, pea, and buckwheat coal, which has been most successfully used for steaming purposes.

While the Sabinas and Esperanzas fields are the more important ones which have been explored and worked up to the present time, there are other fields parallel and contiguous to these, belonging to the same geological formation, and which consequently may be expected to be susceptible of successful exploitation.

In connection with Mr. LUDLOW's paper concerning a State which at present possesses nearly all the working coal mines of Mexico, the

official figures which show the total output of the State of Coahuila for 1909 should not be lacking in interest. These figures show an aggregate of 919,338 metric tons produced during the year 1909.

It is estimated the output during the current year will exceed 1,000,000 metric tons. The commercial tonnage of coal used in the smelters, in manufacturing plants, and for domestic purposes amounted to 381,331 tons for 1909 and that consumed by the railroads to 538,067 tons.

The coal produced in Coahuila is of the coking grade, and from it there was manufactured during 1909 a total of 150,000 tons of coke. Preparations are being made to greatly increase the coke output, and it is expected that the production of the present year will approximate 250,000 tons. Several of the new concerns operating in the coal fields at Sabinas and on the Rio Escondido only recently began to burn coke in forty-eight hours, which represents an economy in time of some twenty-four hours over the old process. It is announced that the Mexican Coal and Coke Company, an American concern, will have 50 coke ovens completed and in operation soon. The Lampacitas Coal Company is erecting 30 new ovens, and the Rosita Coal Company will soon have 60 of them. In the Cleote district a battery of 6 beehive coke ovens was finished in October and a secondary plant of more than 60 ovens is now being installed.

It is believed that if the present rate of development of the industry is maintained it will be only a very few years until the importation of coal from foreign countries will be unnecessary.

THE MEXICAN PRESS BUREAU.

In commenting editorially on the recent establishment of an official press bureau by the Mexican Government, the "Herald" states that this is simply an additional evidence of the progressiveness of the present Government, and gives the following interesting résumé of the useful and valuable nature of the functions of what will be the official news department of the Republic:

The new bureau is intended as a channel of authentic information about governmental affairs to the press and the public, but the newspapers are under no restriction with respect to the publication of official news which they may succeed in acquiring from other sources.

In the course of time the bureau will no doubt perform useful work in answering the more important inquiries which are addressed to the government departments from abroad, particularly from the United States.

If the public could look into the average daily mail bag of a Mexican cabinet minister, they would be amused as well as astonished at the variety and often the whimsical nature of the requests for information addressed to him.

A minister who should endeavor to answer all these communications and to furnish the information requested would have no time for his regular official duties.

Each person who writes to a public man, asking to be informed as to the laws, customs, history, opportunities, etc., of Mexico, perhaps realizes that he is addressing a

very busy official, but he thinks that official may find time just to answer his particular inquiries, not imagining that he is only one of many who reason in exactly the same way and who, perhaps, at the very same time are writing to the official in question with the same expectation that an exception will be made in their favor.

The need for such an institution as the above is apparent, in view of the fact that it would be a physical impossibility for a Minister to comply with the requests expressed in the letters. Moreover, many of the inquirers are bona fide correspondents, seeking information with a view to investment or actual settlement in the country, and as Mexico needs such factors for her development, the Minister would no doubt be performing a public service in furnishing the information requested.

That the opening of this bureau will be productive of much good and fill a long-felt want is so obvious as to need no further exposition. It may, however, be of interest to note what other governments have done in this regard.

The German Government has long maintained an official news department in its Foreign Office. Here trustworthy representatives of the press are received and get their information directly from the administrative head of the press bureau, being entirely at liberty to use or not to use the information given them.

The German bureau is under no obligation to receive all journalists or to furnish information on all points. There is no central German press bureau open to everybody, though several times suggestions that such an institution would serve highly useful ends have been put forward.

In the United States it is a well-recognized function of the Secretary to the President to receive the representatives of the press and furnish them with such information as it is deemed wise to give out. He has in this connection a wide scope of judgment in determining what shall be said about this or that question.

Other fruitful sources for news in Washington are the nine governmental departments, and many reporters become specialists in the gathering of the particular class of news of the departments which they are assigned to cover.

The difference, however, between these systems of giving the public the news is not great; it is in the character of the information supplied wherein the main difference is observed. In Mexico the information furnished is chiefly commercial or industrial, while in Germany and the United States it is generally of a political nature.

THE COTTON CROP.

There is every indication that the present season's yield of cotton in Mexico will surpass all previous records. Dispatches from Torreon to Mexico City state that experts who have carefully gone over the

cotton acreage of the Laguna district estimate this season's crop at 300,000 bales (of about 500 pounds each), which equal 1,500,000 quintals. The increased yield, they say, is due to the larger acreage planted and the splendid growing conditions which have prevailed. Even should the yield fall 500,000 quintals below the estimates now placed on the crop, the total value of the cotton raised in the Laguna district this season should approximate \$17,500,000 gold, to which may be added another \$2,500,000 for cotton seed.

Inasmuch as the Laguna district produces more than 75 per cent of the entire cotton crop of Mexico, returns from this district can be used as a basis for estimating the crop for the entire country.

THE SALT INDUSTRY.

According to Consul-General ARNOLD SHANKLIN, of Mexico City, a concession has been granted for the exploitation of the salt deposits on the west coast of the State of Jalisco, which offers an opportunity for the sale of American machinery to equip the industry. In addition to showing the rapid growth of the salt industry during recent years, the concession is of interest to the United States because of the several hundred thousand dollars which will be invested in machinery and other appliances for the carrying on of the work. It is likewise of interest to the Pacific coast, as practically the entire output will be exported and sent to the cities of the Pacific coast by water, and it is quite probable that they will be of sufficient volume to affect the price of that commodity in such cities as Los Angeles, San Francisco, Portland, Tacoma, and Seattle.

This concession, with those already granted, brings the total number of those of recognized importance up to three. The largest of these concessions is that located in the Tres Marias group of islands, a short distance from the port of San Blas, in the Territory of Tepic. These deposits are controlled by a Mexican syndicate, which has California connections for the sale of its output.

Mr. SHANKLIN says that it is believed that the salt deposit for which the new concession has been granted presents opportunities for an output even larger than that at Tres Marias. The location of this new concession offers splendid shipping facilities, as the bay on which it is located is considered the best natural harbor between Mazatlan and Acapulco, with the exception of the port of Manzanillo on which the Government of Mexico has spent many millions of dollars to improve.

AEROPLANES FOR MEXICO'S ARMY.

The Ministry of War of Mexico, acting upon the advice of an engineer corps expert, who was sent to Europe to study aerial navigation, has decided upon the immediate construction of a fleet of aeroplanes.

The high altitude, it was thought, would make aerial navigation in Mexico impracticable, but General GUZMAN, the officer who was sent abroad, says that it will be an easy matter to construct an aeroplane suited to the atmospheric conditions which prevail in Mexico.

The Mexican War Office has been watching the evolution of the aeroplane closely, especially all experiments which demonstrated their value for scouting purposes. Thus Mexico again takes the initiative in adopting all modern inventions and devices which are calculated to promote the efficiency of her army or navy. So far as is known Mexico was among the first, if not the first, to equip her army with automatic rifles. No particular type of aeroplane has up to the present time appealed to experts as perfect for military purposes; still, some of the latest models have shown in experiments that they would undoubtedly prove a valuable adjunct as army scouts or in ascertaining the movements of the enemy. The acquisition of the fleet of aerial cruisers will naturally lead to the organization of a special airship and aviation corps, with special privileges and encouragement for its officers and men on account of the hazardous nature of this branch of the service.

PLANS FOR THE NATIONAL UNIVERSITY APPROVED.

The plans for the National University of Mexico have been approved by the authorities at Mexico City, the announcement of which reads:

Included in the colleges of the university will be the "national preparatory schools of Mexico." In these of course will be included those of medicine, law, engineering, and fine arts, together with such institutions of higher learning as the Government may establish or indicate in the future.

The university will be governed by a rector ex officio, and an acting rector, and a university council. The rector ex officio will be the Minister of Public Instruction and Fine Arts. The latter will have the right to be present at all the meetings of the university council, but shall have no right to vote. He will be the legal channel of communication between the President of the Republic and the university council and between the latter body and Congress.

On the opening of the university next September the Minister of Education will confer the grade of doctor upon a number of the teaching profession of the city, but no one who has not had ten years' service, except in some special instance, will be considered as an applicant for this degree.

NAZAS VALLEY IRRIGATION WORKS.

The following statements concerning the Nazas Valley Irrigation Works appeared in the "Mexican Herald" of June 9, 1910:

Exploration work which an English company is doing in connection with the Nazas River dam project is now nearing completion, and a site has practically been settled upon at Caja Pinto, where at a very satisfactory depth there is every indication that a perfectly good and safe foundation has been found. However, further tunnels and shafts are now being driven to demonstrate beyond any question of doubt the reliability of the borings which have been taken. A few days ago the drilling outfit was

moved a short distance up the river to the second site, which is said to offer greater advantages than Caja Pinto, and it will be but a short time before all operations are concluded to complete the plans for foundation as presented to the Government by the managing director.

The dam when constructed will have a storage capacity of 1,800,000,000 cubic meters of water. It is planned to hold sufficient water to more than irrigate the entire Laguna district and enable the planters there to double the yield of cotton per acre.

In Laguna are the largest cotton-growing plantations in Mexico, and Mexico has been depending largely upon the crop there for staple to supply spinners. Last year importations from the United States were large, and in view of the very high price cotton brought this year, millions of dollars have gone from this country in order to secure enough cotton to meet Mexican requirements. Cotton planters and manufacturers of Mexico are, therefore, looking forward with great interest to the completion of the Nazas River dam, and consider its building will mean the keeping at home of large sums of money which heretofore have gone to the planters of the United States.

Whether or not the Nazas River dam will be built by the Central Government at the country's expense, and the waters therefrom supplied cotton growers without cost, or whether its construction will be paid for by the planters themselves by the payment of a yearly rental for water rights, is a question which has not yet been settled.

ZACATECAS AND ORIENT RAILWAY CONCESSION.

The "Mexican Herald" states that the formal construction concession for the building of the Zacatecas and Orient Railway was signed by Governor ZARATE, of the State of Zacatecas, early in April. This concession is said to be a renewal of a former concession under modified conditions. By the terms of the concession the construction of the road was to have been begun by June 1, 1910.

This road will have a length of 170 kilometers on the main line from Camacho station on the Mexican Central line of the National Railway lines extending east to Mazapil, and a branch is projected to extend from Cedros northeast to the mining camp of Bonanza. This road provides an outlet to the west for the important mining districts of Mazapil and Bonanza and also traverses a district rich in growths of the guayule shrub.

THE RUBBER INDUSTRY OF TABASCO AND NORTHERN CHIAPAS.

Scattered throughout the State of Tabasco and northern Chiapas there are some 35 rubber plantations, representing an acreage of from 350,000 to 400,000 acres, and a rough estimate of the number of trees cultivated thereon is 10,000,000 to 12,000,000.

This information is regarded as trustworthy, inasmuch as it was obtained from semiofficial sources and managers of a number of the rubber plantations who have a fairly accurate knowledge of the rubber industry of this district.

CONSTRUCTION OF THE VERA CRUZ, TABASCO AND CAMPECHE RAILWAY.

The construction of the Vera Cruz, Tabasco and Campeche Railway offers contractors and firms in the United States a favorable

trade opportunity, as the enterprise will require a large amount of construction material and rolling stock. According to the official papers the concessionaires have complied with all the conditions contained in the contract, so work will be commenced on the road in the near future and rapidly pushed to completion.

NICARAGUA

METHOD OF PAYING IMPORT DUTIES.

With reference to the payment of import duties in Nicaragua, "The Board of Trade Journal," in its issue of June 30, 1910, makes the following statement:

Respecting the method of paying import duties in Nicaragua, the Board of Trade are now in receipt, through the Foreign Office, of the copy of a dispatch from His Majesty's Consul at Managua, dated the 13th of May, 1910, in which he reports that, at the time of writing, import duties were payable (except at custom-houses on the Atlantic coast, with regard to which information was not available) as follows:

Twenty-five per cent in bonds issued under a decree of the 13th of January, 1910, offered to the public at an exchange rate of 650 per cent.

Fifteen per cent bonds issued under a decree of the 17th of March, 1910, also sold to the public at 650 per cent exchange.

Sixty per cent in cash, United States currency, or equivalent in national currency, at 650 per cent exchange.

PANAMA

AGRICULTURAL ENTERPRISE NEAR COLON.

As an indication of the great industrial development which will take place in the Republics of Central America as a result of the proximate opening of the Panama Canal, the announcement that a number of the prominent and wealthy men of Colon have organized an agricultural company called the "Ingenio de las Minas" is of the greatest significance. The company has taken out articles of incorporation and starts operations with an authorized capital of \$350,000, \$60,000 of which has already been subscribed by the promoters. The main object of the company will be the cultivation of sugar cane on a large scale, while such products as rubber, bananas, and other tropical plants will be grown on any of the corporation's plantations which is suited to their cultivation. The company, which is composed of Americans and Panamanians, has secured a tract of several thousand

acres of very fertile land located a few miles from Colon and which enjoys both land and water communication. Projects for the creation of a sugar plantation of the first order is being pushed with vim and vigor. The land is being cleared as rapidly as possible and every available acre will be planted in cane this year. The furnishing of this company with implements and machinery offers American exporters and manufacturers a legitimate field for the extension of their foreign sales.

THE PRODUCTIVITY OF BOCAS DEL TORO.

The following instructive and interesting particulars in regard to an important though little-known section of Panama is furnished by an article in the "Panama Star and Herald" of July 11. The article, which was written after a personal visit to Bocas del Toro Province, treats first of the substantial city of Bocas del Toro, describing it as well paved sanitary, and the possessor of many beautiful parks and handsome public buildings. This city is situated on an island 9 miles long, of exceeding fertility, and inhabited by an industrious agricultural population.

The Province of Bocas del Toro is described as a district of such vast and varied adaptability to the raising of valuable agricultural products as to necessitate a personal visit in order to appreciate its full possibilities. The bottom lands, it is stated, require no irrigation as there is an abundant rainfall, and the whole country is well watered by numerous rivers and small streams. Coffee, cocoa, and bananas attain an extraordinary growth in this section and produce great quantities of fruit.



POSSIBLE OPENING FOR BOATS AND MOTORS.

Consul CORNELIUS FERRIS, JR., of Asuncion, writing on boat building and the facilities for motor boating in Paraguay, says:

Excellent facilities for motor boating in Paraguay are afforded by the Paraguay River and Lake Itaipu. The Paraguay River is from one-half to three-quarters of a mile wide and has a slow current, and small-cargo sailing vessels are frequently seen navigating its waters. It runs for the entire length of the country from north to south and is the principal means of communication in Paraguay proper, except one railroad line and the river Parana. Some taste for motor boating has been manifested, especially by foreigners living in the country, but the great expense of bringing boats here and discouragements due to inexperience have hindered its development. The country affords no other outdoor attractions except horseback riding and hunting. The latter diversion would be promoted by the use of motor boats.

Although boat building is in its infancy, it is one of the first manufacturing industries in which Paraguayans have manifested a natural aptitude. Upon the beginning already made, American boat builders, especially manufacturers of marine motors, may find a new opening. There has recently appeared in the leading daily newspaper of this city an advertisement of a well-known firm in Glasgow, announcing that it makes a specialty of light-draft boats for rivers, propelled either by stern wheel or screw propeller, and that boats can be delivered complete, or in sections and parts which can be easily put together.

More than 1,000 boats a year enter and clear this port, most of which are of 7 or 8 foot draft, engaged in the carrying trade on the Paraguay, Parana, and River Plate system. With the commercial advance of South America this great river system will develop an important carrying trade, calling into service a class of boats suitable for the extensive tributaries of these three large streams. Such a boat was recently constructed at a small ironworks in this city for service on one of the tributaries of the Parana. Asuncion is admirably situated to follow up the beginning it has made in that line.

As a possible field for motor pleasure boats Lake Ipacarai is worth considering. The lake is about 15 miles long and 3 miles wide, beautifully situated among forested hills, 18 miles from Asuncion. On its shores is San Bernardino, a winter resort for Argentinians, who come there in great numbers from May to October every year, during which time the weather is ideal for outdoor life. As communication between this country and Argentina improves, San Bernardino will become a scene of great activity for pleasure seekers. That motor boating is not already a feature of the place is apparently due only to the lack of facilities.



INDUSTRIAL DEVELOPMENT.

Under the caption "Progressive Peru," "The South American Journal" of London devotes an editorial to an authoritative summarization of the agricultural and industrial development of modern Peru.

By way of introduction the article in question states that Peru is one of the most extensive as well as one of the most richly endowed countries of Latin America. Her mineral wealth is immense, her natural resources, with unusual diversities of climate, are of the most exuberant character, and she commands enormous stretches of territory, well-watered and delightfully situated, boasting of a soil of almost unexampled fertility. With all these advantages she is conspicuously privileged, and as regards her potential resources holds a most enviable position among the nations of the world.

A potent factor contributing to the present prosperity of the country has been the currency reform, whereby a change was made from a silver to a gold basis. This important financial reform will undoubtedly be productive of much good, as it has become essential to the maintenance of a nonfluctuating currency.

Further along in the editorial it is stated that the rapid agricultural and industrial development of the country's mines and unutilized lands during the past five years has resulted in an increase in their taxable values and thus materially augmented the government revenues.

Touching upon the future development which is soon to take place in Peru, the article reads as follows:

The productive capacities of Peru have as yet been only superficially exploited. Nevertheless, of late years, they have in some directions manifested notable expansion. The country's exports of sugar, for instance, have increased by 50 per cent in five years and are still moving progressively. The Peruvian growers have been making large profits from sugar, notwithstanding the low prices which rendered West Indian sugar altogether unprofitable, owing to the fact that the sugar can be grown and the mill kept employed all the year round in Peru. Cotton growers are also able to produce a special class of cotton commanding high prices, and European markets have shown that they are prepared to take all the Peruvian growers can produce. In the eastern Provinces of the Republic there are huge rubber-producing areas, with a splendid network of rivers, furnishing cheap transportation by water. The present high prices for this important product must inevitably stimulate the opening up of these forest areas, while affording a substantial source of revenue for the Government of Peru.

Another industrial development in Peru likely to exercise a most beneficial influence on the immediate future of the country is the opening up of immense petroleum deposits in the northern part of its territory. The Peruvian oil field is the second in the world as regards extent, and, although comparatively in its infancy, the export of petroleum at present amounts to 200,000 tons per annum. A new industry which also promises to prove of great value to the Republic is the utilization of its extensive coal deposits. As yet there are no available statistics as respects the coal output, but there is every probability that before long the coal fields of Peru will occupy an important position among the country's industries. An English company is about to exploit on a large scale the large carboniferous areas of the Department of Ancachs, and the railway which is to tap these fields is already constructed for a distance of 105 kilometers from Chombote Harbor. Both of these sources of fuel are of consequence, not only in view of the fact that the Government is maintaining railway construction as a prominent part of its policy, but also because of the necessity of cheap fuel for all industrial undertakings.

SALVADOR

AGRICULTURAL AND PASTORAL INDUSTRY.

"The *Diario del Salvador*" for June 30, 1910, contains the following information relative to the pastoral and agricultural industry of the Republic, which according to data supplied by the various municipalities showed that scattered through the various haciendas or ranches of the country there were in 1908 some 284,013 head of cattle, 74,336 horses, 21,457 sheep, and 422,980 hogs.

Agricultural products for the half-year showed the following figures: Cheese, 35,899 quintals; coffee, 755,279 quintals; cacao, 6,389 quintals; rubber, 5,194 quintals; tobacco, 11,666, and sugar, 273,901 quintals; maize, 1,219,914 fanegas; rice, 94,669 quintals; beans, 163,608, and wheat, 10,527 quintals; sweet potatoes, 18,778 quintals; yucca starch, 5,960 quintals; balsam, 1,448 quintals. The Salvadorian quintal is equivalent to 104 pounds and the fanega to $1\frac{1}{2}$ bushels.

CUSTOMS CLASSIFICATION OF AUTOMOBILES.

According to a decision of the Treasury Department of Salvador, dated May 14, the duty on automobiles, new or secondhand, is to be 10 centavos per kilo from July 1. Automobiles are not mentioned specifically in the tariff of Salvador, and they were probably dutiable at 20 centavos per kilo under No. 240, which applies to carriages of all kinds. The method of collecting duty in Salvador is as follows: Only 83 per cent of the duty specified in the tariff is collected, of which 37 per cent is payable in gold and the remaining 46 per cent in silver (silver pesos=100 centavos, now valued at 37.8 cents). To the above duty should be added a surtax of 6 pesos gold per 100 kilos and 30 per cent of the aggregate amount of duty.



RAILWAY ENTERPRISES.

Consul FREDERIC W. GODING furnishes the following news relative to railway building in Uruguay:

An important decree provides for the extension of the Northeastern Railway from Melo to Artigas, a town of some importance on the Yaguaron, instead of to Centurion. Both towns are on the Brazilian border, the former being accessible to ocean-going vessels.

For the accommodation of passengers the electric car line on Calle 25 de Agosto is to be extended on to Wharf A, so as to be convenient for passengers landing from or going to both ocean going and Buenos Aires steamers.

A railway from the port of La Paloma, on the Atlantic, to Treinta y Tres, passing the towns of Rocha and Lascano, and crossing the Cebollati River at its highest navigable point, is to be built, about 127 miles in length. The State guarantees $3\frac{1}{2}$ per cent interest on a cost of about \$41,500 per mile, which is to be paid in full when the net profits do not exceed one-half per cent of the capital. Work is to be commenced within six months after the approval of the plans, which are to be submitted eight months after being presented. The railway is to be ready for traffic forty-five months after starting. Moles will be constructed at the port of La Paloma and at the crossing of the Cebollati River, although there will be no monopoly. The concession is for ninety years, at the termination of which period the works pass to the State. Colonies

will be established, for which a rebate of 20 per cent of the tariff will be allowed on agricultural products, machinery, utensils, and building material. This railway will open up for settlement a vast region now thinly populated and of great agricultural and mineral possibilities.

THE PAPER INDUSTRY.

According to a report made by Consul FREDERIC W. GODING, of Montevideo, to the State Department of the United States, the imports of paper and cardboard in 1907 were valued at \$750,449. The imports of paper alone into Uruguay in 1906, the latest year for which details are obtainable, were valued at \$535,686; printing paper amounting to \$344,402, the balance being made up chiefly of cigarette, writing, wrapping, and printing paper, and envelopes.

The publisher of one of the most influential newspapers of Montevideo says that the paper used by him was formerly imported from the United States, a specified quantity to be shipped monthly. Interruptions in the shipments caused a shortage in his supply, and while the paper, in quality, packing, etc., gave full satisfaction, he was compelled to cancel the contract and purchase elsewhere.

Very few pulp-producing trees grow in Uruguay, and the factories in the country are compelled to use rags and old paper for the manufacture of their products.

THE URUGUAYAN WOOL MARKET.

The Consul-General for Uruguay in New York City, Mr. J. RICHLING, furnishes the following information concerning the wool market in the country which he represents, a market which, in the opinion of Mr. RICHLING, does not receive sufficient attention on the part of the wool manufacturers of the United States:

Sheep shearing will begin at the end of September and last the whole of October. From the end of October and through the following months the wool will be for sale in the markets of Montevideo and other places in Uruguay.

The exportations of wool from Uruguay in the last few years have been:

	Pounds.	Value.
1906-7.....	92, 593, 000	\$13, 200, 000
1907-8.....	105, 820, 000	15, 400, 000
1908-9.....	114, 639, 000	17, 100, 000
1909-10.....	132, 700, 000	21, 100, 000

In 1909-10 the American manufacturers bought Uruguayan wool to the amount of only \$3,500,000, and in my opinion did not purchase in greater quantities because of their lack of knowledge as to the conditions of the Uruguayan market.

It is my belief that manufacturers interested in the wool business ought not to depend solely upon the houses representing them in Uruguay, but should send to Uruguay, as do the manufacturers of Belgium, France, Germany, and Great Britain, a representative to buy the wool for them. He would have the article before his eyes and would, therefore, select the goods most suitable and convenient to his country. The expenses of the buyer would be easily offset by the cheapness and quality of the article bought.

In buying the wool in this manner the American manufacturer would avoid paying the excess charges on freight commissions, insurance, and exchange, etc., which he has been accustomed to pay in buying Uruguayan wool indirectly through the European markets.

This representative could at the same time investigate as to the future of the wool trade in Uruguay. Our producers have bought in the last years, regardless of cost, the best sheep in the world for crossing purposes, which will result in a considerable increase in the quantity and quality of the wool produced in the future.



NEW CABINET OF PRESIDENT GOMEZ.

On June 3, 1910, General GOMEZ assumed the Presidency and, immediately after taking the oath, appointed the new Cabinet, which is as follows:

Minister of Interior, Gen. F. L. ALCANTARA; Minister of Foreign Affairs, Gen. MANUEL A. MATOS; Minister of Finance, Gen. ANTONIO PIMENTEL; Minister of War and Marine, Gen. M. V. CASTRO ZAVALA; Minister of Fomento, Gen. BERNABE PLANAS; Minister of Public Works, Dr. ROMAN CARDENAS; Minister of Public Instruction, Dr. TRINO BAPTISTA; Secretary-General, Dr. F. GONZALES GUINAN; Governor of Federal District, Gen. F. A. COLMENARES PACHECHO.

BOUNTIES ON NATIONAL PRODUCTS.

The President of Venezuela, by a decree dated March 9, 1910, established export bounties for those national products whose shipment from the country might build up an extensive foreign trade. Among the articles entitled to export bounties are:

(a) Products of sugar cane: Coarse brown sugar and the articles made from the same, such as rum and molasses.

(b) Starchy products: Rice, corn, tapioca or feculæ prepared from yucca, starch, and other feculæ.

The export bounties on the above are:

Products (a) Bs. 0.50 per quintal in excess of 100 quintals.

Products (b) Bs. 1.25 per quintal in excess of 50 quintals.

These bounties will be conceded permanently for a term of five years, counting from the date of this decree, and then will be diminished at the rate of 20 per cent of the value each year.

CONSULAR NOTES.

The "Gaceta Oficial" of Venezuela contains a notice of a directory being prepared to contain a list of the stock raisers, merchants, etc., of the entire Republic, together with the capital stock, etc., of each,

so far as ascertainable. Only those rated at \$10,000 or over will be included. Address communications with reference to this publication to R. M. CARABANO, Caracas, Venezuela.

Consul ISAAC A. MANNING sends the information from La Guaira that W. JAGENBERG, interested in the concession for the navigation of the Rio Tuy, Venezuela, recently received two medium-power motor boats from a Michigan factory, and now has them in service on that river.

Chargé d'Affaires SHELDON WHITEHOUSE sends from the American legation at Caracas a translated copy of a contract entered into between the Government of Venezuela and a citizen for the establishment of meat and meat-extract factories in Venezuela. The free admission of the machinery and equipment is granted. The Bureau of Manufactures will loan to interested American firms the contract in question.

Consul HERBERT R. WRIGHT reports from Puerto Cabello that the Venezuelan Oilfield Exploration Company is a new \$1,000,000 English concern, which has 15 experts at work in different parts of Venezuela, seeking petroleum, coal, and rubber.

Consul ISAAC A. MANNING, of La Guaira, states that the exports of jipijapa fiber from the Venezuelan port of Maracaibo during the first six months of 1909, amounting to 84,656 pounds, valued at \$5,715, went entirely to the island of Curacao, where it is woven into hats. Maracaibo is the only port from which such shipments are declared. The consul forwards samples of the jipijapa fiber, which will be loaned by the Bureau of Manufactures to interested business firms.





Courtesy of The Columbian Magazine.

• GENERAL PORFIRIO DIAZ •
• President of Mexico •

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BULLETIN

OF THE PAN AMERICAN UNION

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NO. 4

IN accordance with the resolution passed and signed by the Fourth International Conference of American Republics, which assembled in July at Buenos Aires, the capital of the Argentine Republic, and adjourned August 27, changing the name of "The International Bureau of the American Republics" to "The Pan American Union" and the title of the "Director" and "Secretary" to "Director General" and "Assistant Director," the new terms have been substituted for the old ones upon the cover and in the text of this issue of the MONTHLY BULLETIN, and will hereafter appear in that form in all the publications of this office.

MEXICO'S ONE HUNDREDTH ANNIVERSARY CELEBRATION.

The celebration in Mexico of the one hundredth anniversary of the declaration of independence of that remarkable nation was one of the most elaborate and successful of its kind ever held in the history of the world. It was fitting that it should be carried out on a grand scale and that it should be attended by ambassadors and special representatives from the principal powers of the world. Mexico has made such rapid strides into the first rank of governments, and is now so generally recognized as one of the most progressive, resourceful, and prosperous countries in the world, that it has a right to invite other nations to join with it in the celebration of its independence. Mexican history is full of deeds of heroism, patriotism, self-sacrifice, and persistent effort against heavy odds in the evolution of a successful government. Mexico's roll of honor of soldiers and statesmen can be compared favorably with that of any other country. The advance she has made in evolving a stable and lasting government, in providing herself with an excellent school system, in the construction of railways, in the improvement of her agricultural areas through irrigation, in the opening up of her mines and

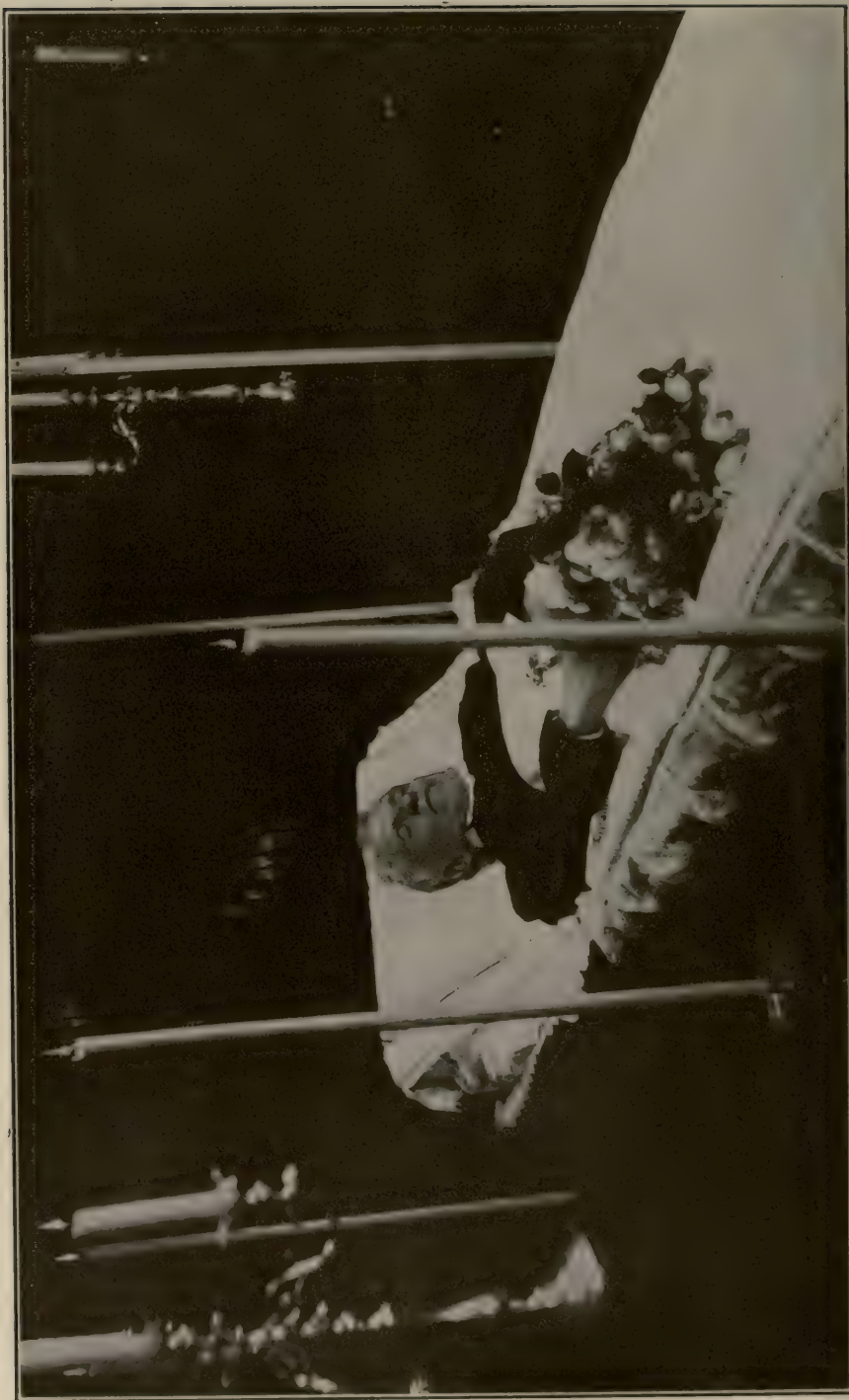


Photograph by Garro & Merlina, Buenos Aires.

DR. ROQUE SÁENZ PEÑA,
President-elect of Argentina.

forests, and in the maintenance of cordial relations with her sister nations, entitles her to highest commendation and congratulation. Despite the efforts of some sensational writers to point out weak places in her social and administrative system, the world at large is not misled and realizes that any shortcomings are dwarfed by the general progress and prosperity which Mexico is enjoying under its present administration.

A careful study of the inner workings of society and the execution of the laws in almost any important country will result in the detection of certain unfortunate features, but they are unavoidable characteristics of human and governmental progress and must not be considered by themselves alone. The favorable side and the good in every country should be considered at the same time that any weak points may be pointed out. In other words, one should be balanced against the other. When this is done in the case of Mexico the pendulum swings far to the side of what is best in the nation's welfare and administration. Considered from every standpoint, Mexico has gone ahead in a way that presages for it a wonderful future. It is fortunate in having a large number of able, conscientious, and thoughtful men to direct the affairs of its Government. It is blessed with a variety of natural resources and climate and with an intermingling of plateaus, valleys, coast line, rivers, agricultural areas, and vast timber tracts which will always make it one of the principal nations of the Western Hemisphere. Covering an area of nearly 800,000 square miles, maintaining a population of 15,000,000, which is only a small part of what it could hold, and conducting a foreign commerce exceeding \$200,000,000 per annum, it can look with satisfaction, pride, and expectation upon its entry on the second hundred-year period of independent existence. The great central figure in this celebration was, naturally, Gen. PORFIRIO DIAZ. He can justly be called "one of the Grand Old Men of America." He has made a place for himself in history equaled by few others. His nobility of character, his firmness of purpose, his simplicity of manner, his gentleness of temper, his love of his people, and his ability of mind, joined with his qualities as a soldier, statesman, husband, and father, make him indeed a unique world character. Fortunate are Mexico and the Mexican people in having had their affairs administered and their interests guarded during the last quarter of a century by such a man as this. May he be spared many years yet to guide his country and witness its continued prosperity, is the sincere prayer of everyone who is interested in the welfare of nations. The Pan American Union and its Director General, in whose work President DIAZ has always manifested earnest and helpful interest, extends to him, to Mexico, and to the Mexican people felicitations on the successful celebration of its declaration of independence, and expresses the hope that the coming century may bring that land a prosperity that shall be unbroken.



THE BODY OF THE LATE PRESIDENT MONTT, OF CHILE, LYING IN STATE IN THE CHAPEL AT BREMEN GERMANY, AUGUST 20, 1910.

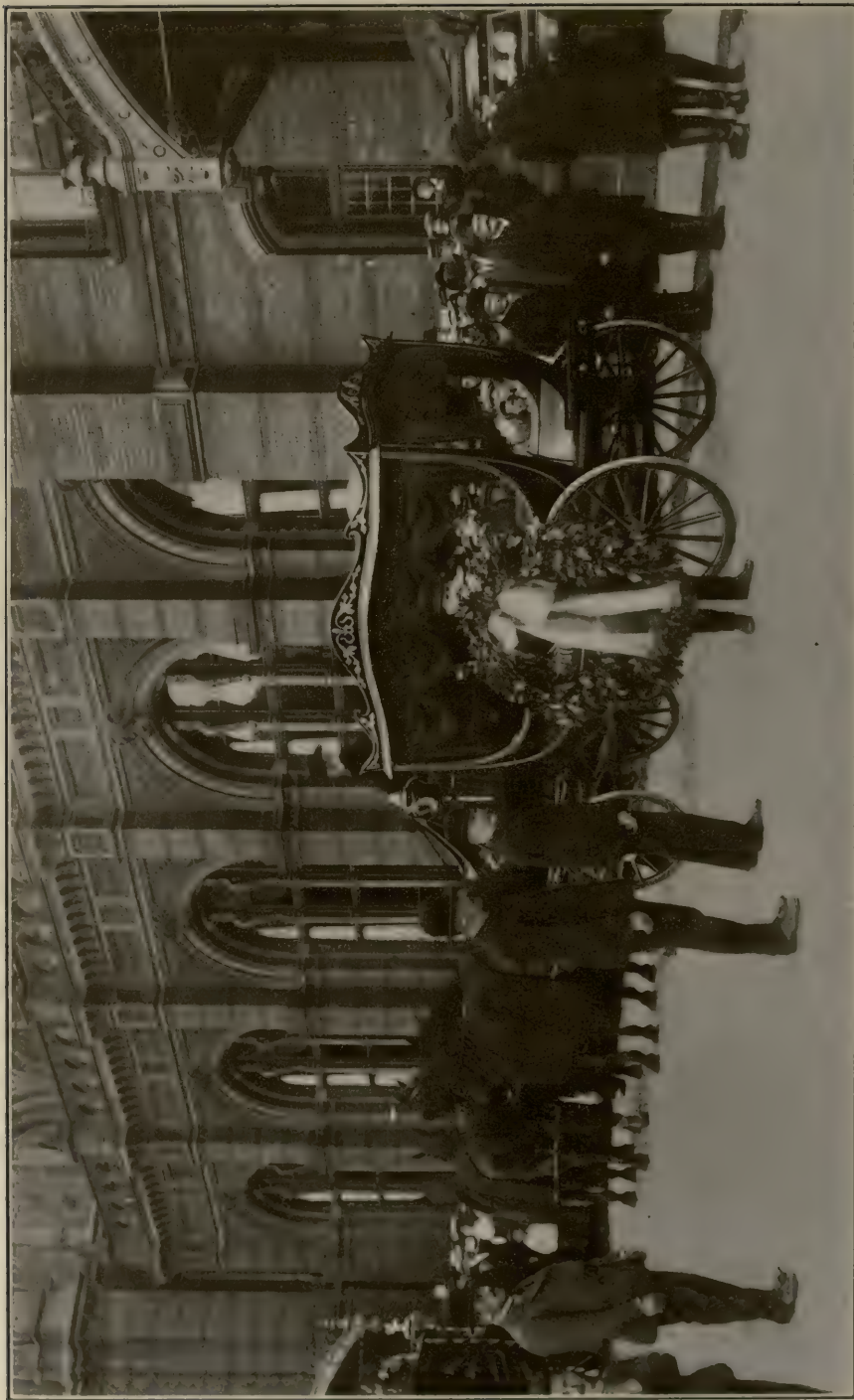
THE CHARGÉ D'AFFAIRES OF CHILE IN WASHINGTON, D. C.

Señor ALBERTO YOACHAM was born in Santiago, Chile, in 1869. His mother was a Chilean by birth and his father an American, a native of the State of Missouri. Señor YOACHAM received his early education in Chile, and in 1886 was appointed in the Department of the Interior, where he remained until 1889. In the last-named year he was appointed Attaché of the Chilean legation in Buenos Aires, Argentina, and in 1891 was appointed Second Secretary of the Legation in Rio de Janeiro. Leaving the diplomatic service in 1892, while serving at the latter post, he entered business in Brazil, but in 1898 was again appointed Second Secretary of Legation in Brazil; from there he was transferred to Paris in a similar capacity, and from Paris to the Chilean Treasury in London in 1903. He received his present appointment as First Secretary of the Legation in Washington in June, 1906, where he has also served as Chargé d'Affaires for periods amounting to about two and a half years.

THE FOURTH PAN AMERICAN CONFERENCE AT BUENOS AIRES.

The Fourth Pan American Conference, held in Buenos Aires, the capital of Argentina, in July and August, had not adjourned when the September issue of the MONTHLY BULLETIN went to press. This, therefore, is the first opportunity afforded to refer in these editorial columns to the work of the conference. That it was a success needs no argument. Such a gathering of eminent men from the American Republics, inspired by a common purpose, could not fail to take action which would deserve that description. The delegates were all picked men and each one willing to do his part. There were naturally strong differences of opinion in regard to the shaping of the different resolutions introduced, but this was a good thing. Differences of judgment and exchange of views which are justly at variance generally result in a conclusion which is far better than if a broad consideration of the questions at issue did not avail. Anything that is worth while must be studied from different standpoints. That the conference has been able to sign many excellent resolutions after thorough deliberation is evidence that the gathering was not in vain and that it will have a most beneficial effect upon the advancement of Pan-American commerce and comity. Special praise must be given to the Argentine Government, the Argentine delegates, and the people of Buenos Aires for the interest and hospitality which they manifested. No effort was spared by them to make the delegates from other countries feel at home and to bring about a harmonious conclusion of the conference. All those who were in attendance will long remember the sincere kindness and unselfish cordiality of the Argentine Republic in providing for the welfare and success of this international congress.

While at this writing, in early September, it has not been possible to receive the text of the resolutions and conventions signed at the adjourn-



THE BODY OF THE LATE PRESIDENT OF CHILE BEING CARRIED FROM THE FUNERAL CAR AT THE CENTRAL RAILROAD STATION IN BREMEN, TO BE PLACED ON A SPECIAL TRAIN FOR BERLIN, AUGUST 20, 1910.

ment of the conference, August 27, and it is, hence, not fair to try to discuss them in detail, the statement can be made, based upon the telegraphic reports which have been received from the able representative of the Union, the Assistant Director, FRANCISCO J. YÁNES, that the action of the conference upon the various subjects outlined will go a long way toward improving the commercial and diplomatic relations between the American Republics. Of particular interest was the attitude of the conference toward the Pan American Union (the new name given by the conference to The International Bureau of the American Republics). It passed a resolution approving of its work, favoring its continuance, and recommending an international convention or treaty which will provide for the permanent existence and maintenance of the Union. The shortening of the name was a wise step because the average man objects to carrying in his mind, writing, or speaking, in describing the institution, such a long phrase as "The International Bureau of the American Republics." The short, expressive, and most appropriate term "The Pan American Union" can be easily remembered, quickly written, and readily spoken. The word "bureau" has been unsatisfactory, because it in a sense naturally implied to the mind not entirely familiar with the character of the institution that it was a subordinate bureau of the United States Government in whose capital it is located. The substitution of the word "Union" at once suggests what is true, that the organization is supported by united effort and cooperation. The word "Pan American" carries the same meaning as "International" and "American Republics." The association, however, of all the American Republics for the holding, from time to time, of international conferences and maintaining the Pan American Union, will be known as heretofore, The International Union of American Republics, and the office of the International Union of American Republics will be "The Pan American Union" instead of "The International Bureau of the American Republics." The change of the title of "Director" to "Director General" and that of "Secretary" to "Assistant Director" was made to avoid misunderstanding as to the meaning or significance of the original terms. The use of the word "Director" for the chief executive of the institution caused constant mistakes in correspondence and in its description through the assumption that he was one of a "Board of Directors." The term "Director General" shows at once that he is the chief administrative officer. In the case of the use of the word "Secretary" it was often assumed that he was himself the chief executive officer, as that title is used for the heads of various departments and institutions. By substituting the title "Assistant Director," his duties are clearly defined. The Director General, who was unavoidably prevented from attending the Pan American Conference, wishes to take advantage of this opportunity to thank the delegates who were in attendance for the very kind consideration they gave to his report, and



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SEÑOR DON ALBERTO YOACHAM,
Chargé de Affaires of Chile in Washington

for their complimentary references to his administration and offers to make the Pan American Union a practical and useful agency for the development and conservation of Pan American commerce and comity.

THE SECRETARY OF THE UNITED STATES EMBASSY IN MEXICO CITY.

FREDERICK MORRIS DEARING was born in Columbia, Missouri, November 19, 1879. He graduated from the University of Missouri, and took a post-graduate course in jurisprudence and diplomacy in Columbian University. He later taught a district school in his native State and also in a military academy in the city of St. Louis; later he was appointed a translator in the Post-Office Department and in the Department of Agriculture. In June, 1904, Mr. DEARING was appointed private secretary to the United States Minister to Cuba; was made Second Secretary of the Legation at Havana, July 30, 1906; Second Secretary of the Legation at Pekin on April 6, 1907, and promoted to Secretary of the Legation at Havana on January 14, 1909, being again promoted to his present post of Secretary to the Embassy in Mexico City on August 10, 1910.

THE UNITED STATES DELEGATION TO THE PAN AMERICAN CONFERENCE.

About the time that this issue of the BULLETIN appears, the delegates of the United States to the Fourth Pan American Conference in Buenos Aires will have returned from the execution of their responsible mission. They sailed from New York about the middle of June on the United States transport *Sumner*, provided for their special use, and arrived at their destination early in July. During their stay in Buenos Aires they were shown particular attention by the Government and people of the Argentine Republic and by the delegates of the other countries. They, in turn, reciprocated with dinners and other expressions of appreciation, and left early in September with most agreeable memories of their experiences. From Buenos Aires they proceeded to Santiago, Chile, where they participated in the celebration of the one hundredth anniversary of Chilean independence. At the conclusion of these festivities the majority of them returned to the United States by way of the west coast of South America and Panama. The delegation was made up of representative men of international reputation, and each one of them will be hereafter an important factor in making the people of the United States better informed in regard to the peoples and countries of Latin America. The Pan American Union will depend upon them for their cooperation and advice, and will be grateful for all the assistance they can give and suggestions they can make in the carrying out of its responsible work. The official party which sailed on the *Sumner* included the following:



THE DIPLOMATIC CORPS IN QUITO, ECUADOR.

From left to right, seated: M. Bohol Descourteur, Minister of France; Sr. Martinez Legula, Minister of Peru; Sr. Carlos Uribe, Minister of Colombia; Sr. F. X. Aguirre Jado, Minister of Foreign Relations of Ecuador; Mr. Williams C. Fox, United States Minister; Sr. Victor Eastman, Minister of Chile; Sr. A. de Alencar, Chargé d'Affaires of Brazil.
 Standing: Sr. Brensini Rossi, Secretary of the Peruvian Legation; Sr. Gómez Jaime, Secretary of the Colombian Legation; Sr. Falquez-Amplero, Under Secretary of Foreign Relations; Mr. Jordan Herbert Stabler, Secretary of the American Legation; Sr. Pepper Van Buren, Secretary of the Chilean Legation; and Sr. Jarhuo Loreto, Secretary of the Brazilian Legation.

HENRY WHITE, Chairman of the Delegation; E. H. CROWDER; LEWIS NIXON; JOHN BASSETT MOORE; BERNARD MOSES; LAMAR C. QUINTERO; PAUL S. REINSCH; DAVID KINLEY; EDWARD B. MOORE, Expert Attaché to the Delegation; WILLIAM R. SHEPHERD, Secretary of the Delegation; GEORGE CABOT WARD, Secretary to the Delegation; WILLIAM T. S. DOYLE, Secretary to the Delegation; SYDNEY Y. SMITH, Disbursing Officer; MARGARET HANNA and W. P. MONTGOMERY, stenographers.

APPRECIATION OF THE PAN AMERICAN ANNUAL REVIEW.

It has been most gratifying to note the general approval which has been given the Annual Review of the commercial and economic conditions in the American Republics published in the July and August numbers of the MONTHLY BULLETIN. This work represents far greater labor and study than is generally supposed. It is no easy task to get together in satisfactory form all the detailed information that appears in this Review. It had to be gathered from a large variety of sources, and in some cases it was almost impossible to obtain the specific data wanted. A considerable section of the staff of the Union were kept occupied fully two months in collecting, segregating, and editing the material. As the Review stands, it is in itself the most complete handbook of the 21 American Republics that has ever been issued, and the demand for it from all over the world is already so great that the extra supply of copies is nearly exhausted. The only way that the Union can provide for the further and continued demand is the publication, in small pamphlet form, of data in regard to each country. In the compilation of so many statistics and facts it has been almost impossible to avoid some errors, and it is hoped that the critics who discover these will be charitable and not let the few mistakes outweigh their favorable consideration generally of the material. The Union will be grateful, moreover, for any notification of errors, and will endeavor to correct them in future issues of the BULLETIN.

Just as one illustration, taken at random, of the educational value of a publication of this kind, it can be said that the Director General has just received a letter from one of the most prominent capitalists in Europe stating that his perusal of the Review had caused him to reach the decision to invest several millions of dollars in Latin America. One of the most prominent manufacturers of Detroit, Mich., writes asking if the Union can let him have 50 copies to distribute among his employees. Two hundred Members of Congress have already applied for extra copies to distribute among constituents who are interested. Scores of libraries are writing asking that copies be sent to them for their reference shelves. The majority of foreign embassies and legations have also requested that there be sent to them special copies for libraries and for the use of their foreign offices. A large number of editorial writers of newspapers have telegraphed or written stating that they wished to have the Annual Review



PROMINENT OFFICIALS OF THE ARGENTINE GOVERNMENT AND DELEGATES TO THE FOURTH PAN AMERICAN CONFERENCE
Group taken on United States Day, July 23, 1910, at the American exhibit in the United States Building of the International Agricultural Exposition in
Buenos Aires, Argentina.



MAXWELL BLAKE,
United States Consul-General at Bogota, Colombia.

in their possession for consultation and reference. One United States Senator writes that if the Pan American Union did nothing else than to publish this Annual Review, it would do a work entitling it to the appropriation which the United States Government contributes annually as its quota for its maintenance. While all these expressions are pleasant and encouraging and will stimulate the staff of the Pan American Union to greater effort in the future, it can be said that the Review is still far from being as perfect as could be desired. A plan is now being formulated for securing data next year from all the Republics, that will make it far more complete, accurate, and useful. A special edition is soon to be printed combining in one volume the two numbers, July and August, containing the Review, which will be sold for 50 cents a copy, to pay for the cost of printing, paper, and binding.

THE UNITED STATES CONSUL-GENERAL AT BOGOTA, COLOMBIA.

MAXWELL BLAKE was born in Jackson County, Missouri, in 1877. He is a son of the late Col. John T. Blake, of that State, who was for many years prominently identified with the development of the States of the Middle West. After attending various educational institutions, Mr. BLAKE graduated from the University of Missouri, and entered the Consular Service of the United States in 1906, receiving his first appointment as consul at Funchal, Madeira. He was transferred to Dunfermline, Scotland, two years later, and successfully conducted the office of Consul at that place until January, 1910, when he was promoted to his present post of Consul-General at Bogota.

DISTRIBUTION OF COPIES OF THE DIRECTOR GENERAL'S REPORT.

If any of the readers of the MONTHLY BULLETIN are sufficiently interested in the specific work and activities of the Pan-American Union and wish to be more fully informed as to its organization, scope, and purpose, it will be a pleasure to forward them copies of the special report of the Director General to the Fourth Pan American Conference which met recently at Buenos Aires. An extra edition of this was struck off for distribution after the report had been submitted to the conference, and any applications for them will be filled until the supply is exhausted.

VISITORS TO THE NEW PAN AMERICAN BUILDING.

The interest which is being shown by visitors to Washington in the beautiful new building of the Pan American Union is worthy of comment. Hardly a day passes that 100 or more persons from outside of Washington do not avail themselves of the opportunity of inspecting its noble architecture and unique interior. The Latin-American patio or courtyard



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FRED MORRIS DEARING,

Secretary of the United States Embassy in Mexico City.

with its abundance of rare tropical plants, its finely chiseled archaic fountain, and its walls ornamented with the escutcheons and principal historic names of the American Republics, attracts particular attention. The capacious and handsome Hall of the Republics with its stately columns and its chaste finish, the meeting room of the Governing Board with its bronze historical and legendary frieze and its beautiful mahogany table and chairs, the attractive library and reading room, and the roomy, well-lighted, and sanitary offices for the staff, awaken the favorable comment of all. After looking it all over they inevitably become interested in the object and work of the Pan American Union and go away with the intention of becoming better acquainted with those countries which, in cooperation with the United States, maintain such an institution and such a home for its work. They also are unanimous in expressing the opinion that Mr. CARNEGIE never made a more practical gift than that which enabled the Pan American Union to erect this structure dedicated to the development of friendship, commerce, and peace among the American nations.

THE UNITED STATES CONSUL AT LA PAZ, LOWER CALIFORNIA.

LUCIEN NORRIS SULLIVAN was born April 16, 1869, in the State of Indiana. He graduated from the Rose Polytechnic Institute at Terre Haute, Indiana, and in 1891 secured employment as draftsman in the Union Iron Works, San Francisco, where he remained until 1893. He was employed by milling and other firms for two years, and in 1895 and 1896 was inspector of public works at Indianapolis, Indiana, which position he left to enter the employ of a contracting firm engaged in establishing a drainage system at San Antonio, Texas. In 1899 Mr. SULLIVAN resumed his career as a draftsman with a beet sugar and ice manufacturing company; was employed for two years by the Bethlehem Steel Company; instructor at Lehigh University from 1902 to 1906; and engineer at Pachuca, Mexico, 1906-7, being appointed, after examination, Consul at La Paz, Lower California, on May 31, 1909.

A NEW ORLEANS PUBLICATION.

The BULLETIN is in receipt of an interesting monthly publication, printed in New Orleans, State of Louisiana, United States of America, called "The Logical Point: An illustrated monthly for the advancement of the World's Panama Exposition, New Orleans—1915." The editorial director is WILLIAM C. CHEVIS and the press representative EMILE V. STIER. It is published under the direction of the Publicity Committee, SAM BLUM, chairman, and is filled with articles and photographs which are intended to show that New Orleans is "the logical point" for the World's Exposition to be held in 1915 in celebration of the opening of the Panama Canal.



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[LUCIEN N. SULLIVAN,
United States Consul at La Paz, Lower California, Mexico.

MEXICO'S CENTENNIAL CELEBRATIONS

AN old-fashioned Spanish bell hangs from the façade of the National Palace in the City of Mexico. Every year, the President of the Republic, on the night of the 15th of September, repeats the famous *Grito de Dolores* (the Cry of Dolores) and rings this "liberty bell," in commemoration of the event when it was first used to call the people to strike for freedom.



XOCHITL, THE FAIR DAUGHTER OF PAPANTZIN,

Offers the first cup of blanco neutll (pulque) to Tepancaltzin, eighth king of the Toltecs. From a painting in the San Carlos Academy, City of Mexico.

The bell was 200 years old when MIGUEL HIDALGO, the father of Mexican independence, made it the instrument of his patriotic work on the eventful 15th of September, 1810, and on the 15th of September, 1910, it was rung by President PORFIRIO DIAZ on the one hundredth anniversary of the struggle for liberty.

HIDALGO was born May 8, 1753, and was shot as a traitor on July 31, 1811, when he was 58 years old. President PORFIRIO DIAZ was born September 15, 1830, and will be 80 years old on his birthday, the Mexican national holiday, in 1910. Had HIDALGO lived to the same ripe age, and physically he gave every promise of such good

fortune, he might have taken the child DIAZ by the hand and told him of the dreams of the priest turned soldier to change the beautiful country of his birth into the productive garden he knew it might become.

In that respect HIDALGO was no dreamer, for he had already, in his diocese about Dolores, shown what a kindly nature could do with industry and a knowledge of applied agriculture. DOLORES HIDALGO, as the town is now called in honor of the hero, lies some 60 miles northward from the city of Queretaro, which is itself 167 miles north of the City of Mexico. Queretaro is one of the most fertile and attractive regions of the Republic. Beautifully situated in a sheltered valley, the richness of the soil and the pureness of the air invited immigration from the capital and other populous towns to the south. The agricultural and manufacturing industries of the place showed a great prosperity



VISIT OF CORTEZ TO MOCTEZUMA.

From a painting in the San Carlos Academy, City of Mexico.

during the latter half of the eighteenth century, and the city was growing with a rapidity scarcely equaled even in the active times of the present day. HIDALGO knew the city and the surrounding district, and was interested in all the developments that were taking place, but his was too progressive and inquiring an intellect to remain content with observing or following merely what others had done or were doing. He was a theologian, but more than that he was a student of affairs, and active both in mind and body; he penetrated into human conduct, and could not rest until he had put into practice, both in society and on the soil, the theories which seemed to him best for mankind. He had read much in history, in the later philosophy of the French schools; he interpreted politics and government as something in which the people themselves were vitally interested, and he was ultimately to give his energy and even his life in the

desperate attempt to apply his ideas practically. He had read deeply also in the sciences of agriculture and industrial production, and he applied what he knew to increasing the fertility of the neighborhood of Dolores.

HIDALGO had indulged in a variety of occupations during his boyhood on his father's hacienda, and in his parish life he took every opportunity to work, apart from his clerical duties, in whatever was congenial to his taste. He established a porcelain factory; he improved the cultivation of the vine, planted mulberry trees, and grew silkworms. He inspired the Indians, speaking their language well, and was able to not only lead them into revolt against their oppressors but also to arouse in them an industry that made the region about Dolores blossom like the rose.



THE SENATE OF TLAXCALA.

In Tlaxcala is the Church of San Francisco (founded in 1521); the first pulpit from which the Gospel was preached on the Western Hemisphere, and the baptismal font in which the four senators of the ancient Tlaxcalan Republic received the Catholic faith. From a painting in the San Carlos Academy, City of Mexico.

The priest turned soldier had therefore two dreams; one was the liberation of his country from the foreigner, for Spain was at that time considered as a power alien to beloved Mexico and was then threatening to deliver Mexico into the hands of the French. Against this HIDALGO resisted till his end. His other dream was the industrial development and progress of the fair land which he knew was to become a horn of plenty under the magic touch of freedom and industry.

He knew that his country was capable of far greater production than in his day, for he had proved it. He had grown the vine near his parish church, and the grape was worthy of his efforts, but the Government had ordered his work destroyed, had prohibited many

kinds of industry in which the people would have liked to employ themselves profitably, and had exercised an unreasonable monopoly in favor of the merchants of the old world. HIDALGO looked far ahead into a prosperous future, from his view point at the beginning



THE PARISH CHURCH AT DOLORES (DOLORE-SHIDALGO).

In front thereof a monument has been erected by a grateful people to their former "Cura" Hidalgo, "The Father of Mexican Independence."

of the nineteenth century, and it is interesting therefore to understand what that view point was.

Mexico in the year 1810 was still a great distance away from the centers of civilization. The only means of approach from Europe was by a long and at times hazardous voyage by sailing vessel. To

the interior from the coast the old mountain trail from Vera Cruz, beaten into a highway by the Indians and used by CORTÉS on his famous march of conquest, was the only entrance. The railway was unheard of, the cities of the great plateau were connected only by roads, traveled chiefly by horse and mule or in some few cases by diligence, while the life of the country people was a replica of the feudal system of the middle ages.

Of immigration practically nothing was known, as the Indian indigenous population sufficed for all labor, and the few negroes



MIGUEL HIDALGO Y COSTILLA, THE "FATHER OF MEXICAN INDEPENDENCE."

JOSÉ MARÍA MORELOS, "HERO OF A HUNDRED WARS."

imported at an earlier time had become assimilated and lost among them. The classes were rather sharply defined, the aristocracy being pure Spaniards, born in Spain, who looked with some contempt upon those of their race who happened to have been born in Mexico, and were called Creoles. Far below these were the Indians, and the mixed races resulting from the unrestrained commingling of Indians, Europeans, and the few negroes who had come into the country. An imperfect census had been taken in 1806 and, allowing for defects in the method of enumeration, the result showed a population of about

6,500,000. Of this number, the pure Indians were estimated at 2,500,000, divided and subdivided into various tribes, having a common origin, but differing in language, customs, and dress. The natives of mixed blood were about as numerous as those of pure blood—Indians—while the natives of pure European descent amounted at the most to 1,500,000; probably all told there were 80,000 Europeans in Mexico, established in different parts of the country. These Europeans held the offices and exercised the power of government, all the



FRANCISCO JAVIER MINA.

General Mina, who had acquired distinction in the Peninsular War, disembarked at Rio Soto la Marina, April 15, 1817, with a large force of Spaniards, who rendered valuable service to the oppressed Mexicans.



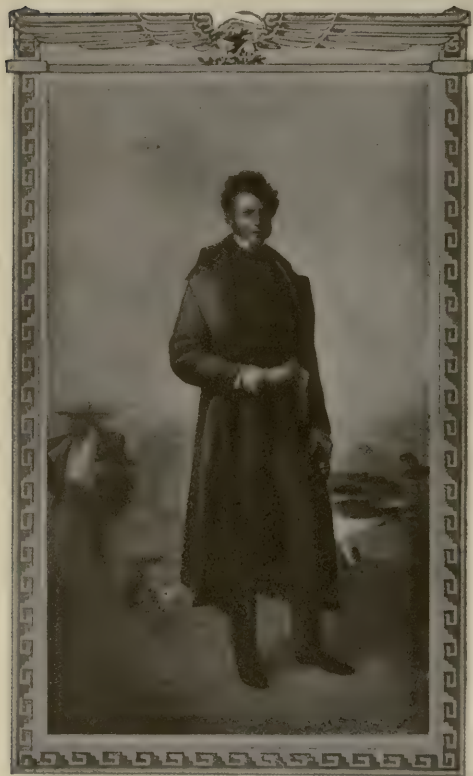
GEN. MARIANO MATAMOROS, "HERO AND MARTYR OF INDEPENDENCE."

General Matamoros was shot by order of the Spanish Government, February 3, 1814.

rest of the inhabitants being deprived of political rights. The social life of Mexico naturally separated itself into two great divisions, the European and the American.

It must not be supposed, however, that none of the factors of civilization had been introduced into Mexico. On the contrary, the interior of the viceroyalty, especially that wonderfully beautiful and fertile region of the table-land, was at the beginning of the last century one of the most highly advanced countries of America. The City of

Mexico was famous on account of its wealth, its splendid architecture, and the elegance of its society. Numerous cities, like Queretaro, Guanajuato, Valladolid (the present Morelia), Puebla, and Zacatecas, among the many, were centers of luxury, culture, and art. Some of them had a population even greater than that of to-day. Schools for the study of the professions and charitable institutions of all kinds were founded and endowed with a lavish hand. Outwardly the vice-



VICENTE GUERRERO.

Guerrero was in formidable resistance to vice-regal authority prior to the execution of the "Plan de Iguala."



AUGUSTIN DE ITURBIDE, "THE LIBERATOR."

Augustin I, Mexico's first emperor.

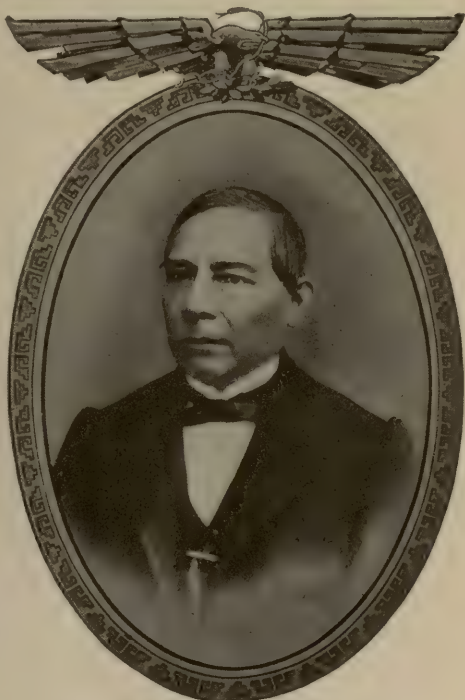
royalty of Mexico, or New Spain, was a prosperous and productive colony.

But this colony was built upon a false and therefore insecure foundation. Of its large and growing population of more than 6,000,000, only 80,000 at the most were entitled to be classed as citizens. The remaining 88 per cent were of value only as they paid taxes or performed manual labor. Naturally rich in all resources that make a country great, the wished-for commerce and industry were throttled in very infancy. Monopolies were established for the selfish few in Europe; "in order to increase the wants of the colonies,

they were forbidden to manufacture any article that the mother country could supply; and they were even compelled to forego the advantages which they might have derived from the superior fertility of their own soil, and to draw from abroad necessities with which nature furnished them almost at their own doors. The cultivation of the vine and olive, for both of which the climate of America is admirably adapted, was prohibited; and even the growth of what we term colonial produce (cacao, coffee, and indigo) was only tolerated under certain limitations and in such quantities as the mother country might wish to export."

Yet HIDALGO, knowing this, knew also that his fatherland was capable of immeasurably larger yield. He had been successful with the vine, and he knew that the native products would be abundant for the people's wants. From his reading, his observation, and his travel he knew that Mexico was, agriculturally, one of the richest regions of the world. Maize, the Indian corn, was indigenous to his country; the olive would thrive if not prohibited; chile was one of the necessities to the Indians; tobacco, indigo, and cacao were planted long before the conquest; cotton was found among the indigenous productions of Mexico and furnished almost the only clothing used by the natives; while the maguey, vanilla, and cochineal had been prized by the Aztecs and were valued in Europe, but agriculture was discouraged.

Yet Mexico, in the time of HIDALGO, produced an annual agricultural store equal to \$29,000,000, which was found to exceed, by \$4,000,000, the annual average of the mines, from which the wealth of the country was supposed to be principally derived. The priest turned soldier knew of the great possibilities of his country if only she could become free to develop her natural resources.



BENITO JUAREZ, "THE REFORMER."

Constitutional President, installed at Queretaro, January 10, 1858. He was the head of the "Fugitive Government" during the period of the so-called French Intervention. President Juárez, savior of the honor, independence, and dignity of the Republic, beloved by all, died in office, July 18, 1872.

HIDALGO dreamed of the future as it might be. He sounded the first note for liberty, but he died before he was permitted to look ahead to its realization.

Sixty-five years passed from the day of HIDALGO's death to the date on which Mexico at last entered upon an epoch of realization of political rest and material prosperity. They were lean years for the proposed empire or the established republic. There were wars from without and revolutions from within. The nation did not grow as it should have done, nor could the boast be honestly made that its early promises of theory and practice had been carried out; yet one result was accomplished, and in the history of nations perhaps that was the



(Courtesy of The Columbian Magazine.)

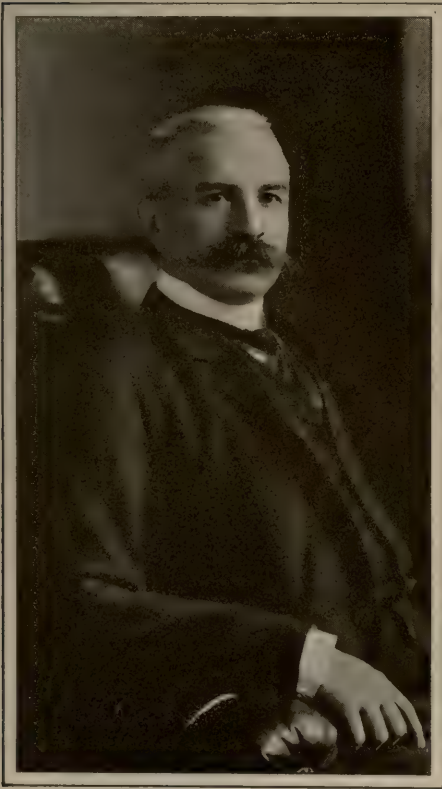
PRESIDENT DIAZ TAKING HIS MORNING RIDE IN CHAPULTEPEC PARK WITH HIS SON AND CHIEF OF STAFF.

needed product of the unhappy struggles that wounded it. The scattered and heterogeneous classes from which it sprung had been welded into a Mexican people. Moreover, it was demonstrated after disastrous experiments that the Mexican people had become thoroughly republicanized. If the *Grita de Dolores* in 1810 had as its inspiration the desire of America for the Americans, it is equally true that the political judgment after two generations of readjustment had repudiated the idea of an empire and had crystallized into a desire for a republic.

When the United States, in 1876, was celebrating the one hundredth anniversary of the Declaration of Independence and the whole world was congratulating that Republic on the successful century of popular

government, Mexico seemed a negative in much that concerns social, intellectual, and industrial progress. Only one man had made a really lasting name for himself in the history of the country.

BENITO JUAREZ was of native Indian blood and could voice as well as feel the growing political ambitions of his fellows. He had the brains to conceive and the power to act; he foresaw the inevitable march of civilization and did much to encourage the progress of the nation, but certain elements were still lacking to make the country



(Courtesy of The Columbian Magazine.)

SEÑOR RAMON CORRAL,

Vice-President and Minister of Government.



(Courtesy of The Columbian Magazine.)

SEÑOR ENRIQUE C. CREEL,

Minister of Foreign Affairs.

great, and JUAREZ died before his own projects could be thoroughly carried out.

PORFIRIO DIAZ was a soldier turned priest. Not in the sacerdotal sense of the word was he clothed in righteousness, but rather in the meaning of modern robust Christianity which sees that material and spiritual progress must go together and which demands national and social peace for their fructification.

DIAZ found Mexico, his native and beloved country, groveling in political and economic dilapidation. He knew of the dreams of his



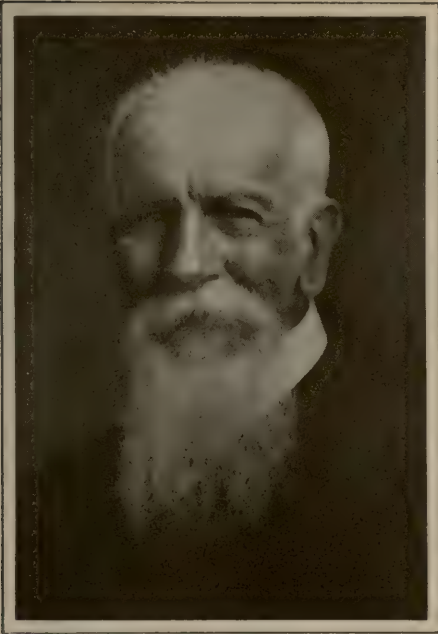
Courtesy of The Columbian Magazine.

PRESIDENT DIAZ AND HIS CABINET

early predecessor, HIDALGO; he knew the capabilities of the land, the riches that awaited only the hand of industry to unlock them, and he, too, must have dreamed of a future luxuriant in promises fulfilled, of a nation holding up her head in recognized equality with the world.

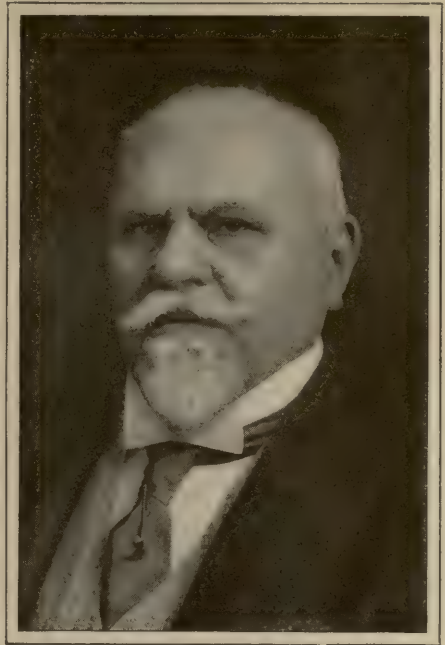
The accomplishments of Mexico since 1876 are to a large extent, therefore, the result of the incentive created by the revolution of HIDALGO, and of the energy of DIAZ in producing practical results from inherent possibilities.

Accomplishment, then, is the undeniable fact, at the end of one hundred years of independence. The dreams of HIDALGO and of



(Courtesy of The Columbian Magazine.)

SEÑOR JUSTINO FERNÁNDEZ,
Minister of Justice.



(Courtesy of The Columbian Magazine.)

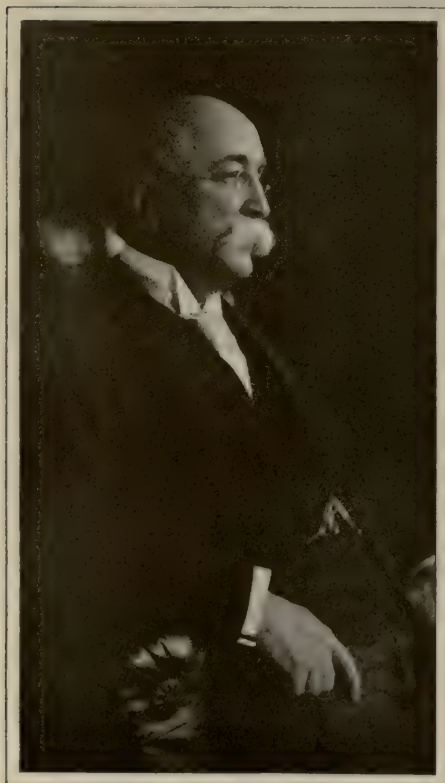
SEÑOR JUSTO SIERRA,
Minister of Public Instruction.

DIAZ have come true. The soldier-student-worker can call up the spirit of the old dreamer priest turned soldier, and explain to him the changes in the Republic at the beginning of the new century.

In the very first place, Mexico is safe, as safe as any country in America. Life and property are secure, and the brigands who harried the country as outlaws or under the cover of law no longer ago than thirty years have disappeared before the intelligent progress of authoritative and impartial government. To Anglo-Saxons this may sound a trivial boast, but it is necessary to go back only fifty years in the United States or one hundred and fifty in England to find conditions which are to-day practically forgotten in Mexico.

Banditti find that there is more profitable employment in steady work at a respectable trade, for two great factors of civilization, education and industry, are offered to all the people.

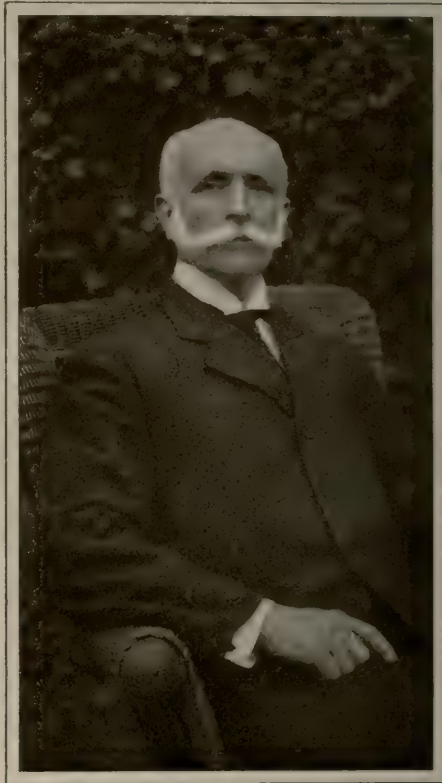
It is no disparagement to Spain to say that she did not educate the people of Mexico. Colleges there were in plenty, and noble-hearted teachers who gave of all that was in them for the guidance of their pupils, but a public-school system such as exists to-day in the Republic was no part of the colonial idea of government. But DIAZ can now



(Courtesy of The Columbian Magazine.)

SEÑOR OLEGARIO MOLINA,

Minister of Fomento (Promotion) Colonization, and Industry.



(Courtesy of The Columbian Magazine.)

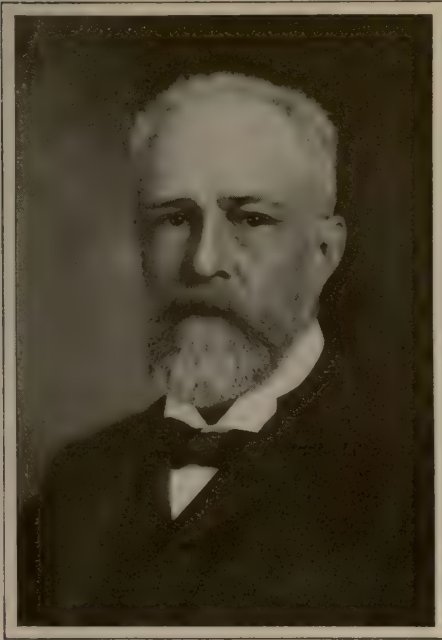
SEÑOR JOSÉ YVES LIMANTOUR,

Minister of the Treasury and Public Credit.

show to the spirit of HIDALGO a score of schools where only one existed before. Every town has its free school; every municipality aims to support some institution that will supplement the general education demanded by the federal and state systems of compulsory instruction. Normal schools, technical schools, and industrial schools are given to Creole and Indian alike—for they are all Mexican, with no distinction of race or color before the law—furnishing such education as will fit them for their future activities. And every element in them is modern,

from the new American school furniture to the Spanish and English text-books and the complicated scientific apparatus needed in the higher branches.

At the apex of the system is the university, which was really one of the first in America, as it was founded by the Spanish crown in 1551, but which for many years now has lost its significance in a subdivision of faculties not organically connected. To reestablish this ancient institution of learning on a larger scale has been a fixed purpose of the present Government, and the consummation of the plan will be effected during the present year. Perhaps education



(Courtesy of The Columbian Magazine.)

SEÑOR LEANDRO FERNANDEZ,

Minister of Communications and Public Works.



(Courtesy of The Columbian Magazine.)

GEN. MANUEL GONZALEZ COSIO

Minister of War and Marine.

in Mexico does not agree completely with education in New England, but that can not detract altogether from its merit. The natives are Mexican, not Yankees. They preserve to a wonderful degree the blood and attributes of their aboriginal ancestors, and taking this into consideration the Government is wisely adjusting its educational forces to accomplish the best results from the material destined to become the citizens and home makers of the nation.

To teach the people to be industrious—that is the principal characteristic of Mexico's schools. Yet the Mexicans never lacked in industry; they have always been producers, and willing to work.

HUMBOLDT was astonished at the amount and worthiness of labor at the beginning of the nineteenth century. But for generations the crying need in the country was opportunity, and opportunity is to-day presented as never before to investor, business man, professional man, and wage-earner. Agriculture in all its branches is fostered by the national and state governments; the mines are equipped with the latest machinery, so that to the billions of dollars of bullion turned out by the historical mines of the colonies are yearly added millions more which old-fashioned methods could not reach. Almost every city has its telephones, its electric-light plant, its street-car service, and is connected by the telegraph wire with



(Courtesy of *El Imperial*, Mexico City.)

THE KEYS TO THE CITY OF MEXICO.

On September 18, 1910, France solemnly delivered to the Government of Mexico these old keys, held for fifty years in exile, and President Díaz then restored them to the proper municipal authorities.

all parts of the Republic. Water power is abundant, and has, during the last decade, been remarkably utilized for electric power to supply the ever-increasing demands of industrial activity. And in addition to this energy displayed within the nation by native and foreign interests, recognizing the commercial advantages of a land rich in natural resources, the national and municipal governments have done and are still doing immensely valuable work in applying the modern lessons of practical hygiene for the benefit of the people and the improvement of the race.

Yellow fever, once the scourge of the Gulf of Mexico, has been practically obliterated from the city of Veracruz, which bore an evil name only a few years ago, by the radical efforts of the national department



Courtesy of El Imparcial, Mexico City.

THE HISTORIC MOMENT IN THE HISTORY OF THE REPUBLIC OF MEXICO.

As the hands of the clock approached eleven on the evening of September 15, 1910, President Diaz waved the flag of his country and pulled the cord that caused the liberty bell to sound, as did Hidalgo in Dolores 100 years ago. As the cry of "Viva Independencia" went up, it was answered by tens of thousands of voices around the National Palace, and the new century had begun.

of health, aided by the State of Veracruz. Travel through that historical seaport is now continuous throughout the year, whereas it was formerly shunned as a death trap to the foreigner during all the months of summer. Tampico, too, has been reclaimed. Progreso, in Yucatan, although still the object of quarantine on the part of Havana, is being attacked by the weapons of modern science and can not long withstand them. Smallpox has lost its terrors, the whole nation has been vaccinated, and the pitiful sight so common a generation ago of scarred victims of that disease of filth and ignorance will soon be as rare in Mexico as it is to-day in England. Plague has recently invaded the country; but thanks to prompt and enlightened action on the part of the government authorities, it disappeared, conquered and controlled by a systematized assault upon it. If a new lesson in public health is learned, the nation applies it; if a new principle in public



(Courtesy of *El Imparcial*, Mexico City.)

THE SPECIAL SPANISH AMBASSADOR, SEÑOR PALAVIEJA.

noble engineers and constructionists though they were. The Government in 1900 at last completed the canal for the drainage of the City of Mexico and turned the waters of the old swampy lakes, close to which the prehistoric and historic foundations of the city were laid, outside the beautiful valley and away toward the sea. Mexico City has in other respects also been rebuilt, and at the end of the century of independence may justly be compared with the best capitals of Europe and America.

This eagerness for municipal improvement is a noticeable characteristic of the state capitals as well. They were all founded by the Spanish, and all show that admirable genius for municipal foundation and artistic construction which was so essentially a token of the conquest of America. But almost all of them had fallen into decay; during the sixty years of struggle, when battles were common and business prostrated, little thought could be given to civics. Peace alone could bring out the inherent ambitions of the Mexican people,

sanitation is advanced, the Government sets its trained men to study it, and if it proves of value for Mexico it will soon be found analyzed and adjusted for local use.

And in this regard one of the triumphs is the solution to a problem that puzzled the old Spaniards,

and peace the nation has now had for over a generation. This of itself is sufficient to explain the marvelous expansion in the two factors of modern civilization—transportation and commerce.

Commerce is encouraged by ease of transportation. This stands to reason, although the one need not necessarily be strangled by the lack of the other. In early colonial days Mexico's commerce was tremendous. Before the railroad came the traffic between the sea-



THE SPECIAL BRAZILIAN AMBASSADOR, SENHOR ANTONIO DA FONTOURA XAVIER
WITH SENHOR MANUEL MARTINEZ DEL CAMPO.

The official introducer of ambassadors on the right of Senhor Xavier.

port of Veracruz and the capital used up 70,000 mules a year carrying it ceaselessly back and forth. In the interior 60,000 mules a year were occupied in the trade between the northern cities of Coahuila, Chihuahua, and New Mexico. Men traveled on horseback or in diligence, while the cargoes were piled on the animals, or sometimes carried safely, but with days of patient plodding, on the backs of men. In mountain towns like Durango, too far away to be commercially

accessible from the north or south, the visitor may see to-day huge old plate-glass windows and beautiful mirrors; these were transported thither from France across the Atlantic Ocean to Colon, in Panama, across the Isthmus and on the Pacific Ocean to Mazatlan, and over the mountains to the homes of the rich who were desirous of emulating



SPECIAL UNITED STATES AMBASSADOR, HON. CURTIS GUILD, ALIGHTING FROM HIS CARRIAGE AT THE NATIONAL PALACE.

the luxurious habits of their European contemporaries. Interior commerce thus grew in spite of poor roads and queer notions of political economy, but foreign commerce consisted chiefly of the export of precious metals and the import of Spanish-made goods which the colonists were compelled to accept.

From the first days of peace, however, another story began to be told. Mexico found what the outside world wanted and provided it, while the inhabitants of the Republic began to take care of their material needs by the importation of material they could not as yet produce at home. At the beginning of the new era, in 1876, the total foreign commerce of Mexico was only 65,000,000 pesos silver, but in 1908 it had increased to 465,000,000 pesos, and there is a tendency to sell abroad more than is bought, so that a favorable balance remains to the credit of the nation.

The internal commerce, too, would appear marvelous to HIDALGO if he could see how the mills of Torreon help clothe the workers in the Tropics of Tehuantepec. Every State now can call upon any other to accept what it produces or to help provide what its people wish. Every State can today find a growing market within the Republic for the industries of its inhabitants or the product of its own soil. The old isolation has disappeared; the old barriers are removed. One of the economic triumphs of DIAZ has been the obliteration of the inherited interstate customs taxes, and the entire interior is therefore free to carry on its national trade unhampered by false frontiers, and this of course encourages commercial activity in a way that HIDALGO could not have imagined; but probably to the heroes of the revolution the overwhelming wonder of all would be the railroad and its accomplishments for humanity and civilization.

The first railroad in Mexico was opened in 1873, and connected the capital with the seaport of Veracruz. The Republic was therefore behind the other countries of Latin America in yielding to the demands of modern progress. Chile had a line under construction, the first in South America, as early as 1851; Cuba was even in advance of Chile; Brazil, while an Empire, followed Chile by only a few years; and Costa Rica boasts that on its shores was offered to STEPHENSON a chance to construct rails for his new invention should Englishmen refuse him. But Mexico has well atoned for its early indifference,



THE MINISTER FROM CUBA, GENERAL LOYNAZ DEL CASTILLO, AT THE MEXICAN CENTENARY CELEBRATION.



PRESENTATION OF FOREIGN DELEGATES AT THE NATIONAL PALACE.

Reading from right to left: 1. Señor Joaquín B. Calvo, Minister of Costa Rica. 2. Señor Manuel Echeveria, Secretary to the Guatemalan Delegation. 3. Dr. Juan Ortega, Delegate from Guatemala.

and now no difficulty of engineering is allowed to stand in the way if there is advantage to the people in uniting hitherto isolated parts of the Republic by bands of steel.

At the beginning of the new century of independence there were in Mexico over 15,000 miles of railway. The northern frontier is crossed by four lines, and another is planned. The southern frontier is already reached by a splendid trunk line which, following the cartroad originally used to give entrance into Central America, now brings this area anew into touch with the north, and opens to productive ambition a magnificent region destined to become an important source of native riches to the whole continent. Four seaports on the Gulf are in communication with the capital and can send their supplies throughout the interior; one other has a system developed for the benefit of its contiguous territory and will soon have a line of connection overland to the interior. Five seaports on the Pacific now are touched by trunk



THE SALVADOREAN MINISTER, SEÑOR JOSÉ ANTONIO RODRÍGUEZ, AND STAFF.

lines, and toward several others the main highways are sending branches with all due enterprise. Across the continent is the Tehuantepec Railway hurrying every day in the year an overwhelming traffic between two sides of the globe, and from ocean to ocean over the height of the sierras travel is possible by half a dozen combinations of rail extension. This is certainly a satisfying development for a generation, but it is only a promise of what is sure to happen before the century is half over.

The seaports are the stepping-stones to the interior, and without them all foreign commerce would languish. Mexico therefore has not neglected to modernize this important adjunct to national and international communication. The Government made them serviceable for both the present and the future. Veracruz, for example, which twenty years ago had no better facilities than when CORTÉS burned his ships on the sandy beach, now invites ocean steamers to tie in an ample

depth of water to finely equipped docks on which cargoes can be transferred direct to the waiting trains. Tampico rivals Veracruz, and has on that account become the gateway to the north. Manzanillo is the gateway to the west and Mazatlan can be compared to it in excellence. Puerto Mexico and Salina Cruz, the terminal ports of the Tehuantepec Railway, are so magnificently equipped that the disturbance to a cargo in passing from the vessel's hold to the train and back again is an almost insignificant item in the voyage, and the one-time advantage of a ship canal over such double handling is practically neutralized. These improvements have cost millions, but Mexico has not



(Courtesy of the Mexican Herald.)

THE NEW INSANE ASYLUM IN THE CITY OF MEXICO.

The dedication of this building on September 1, 1910, was the first act of the centennial celebration. President Diaz performed the inaugural ceremony. His son, Col. Porfirio Diaz, was the architect and gave much personal attention to its construction.

hesitated at the expenditure, because the future welfare and industry of the people were thus assured.

It is true that Mexico has spent money with a lavish hand, but only to reap therefrom a reward that comes upon a farsighted judgment. While spending she has conserved; her finances are secure; her peso is worth unfluctuatingly the value given it by the Government; her promises to pay are honored without question, and her credit is at a premium throughout the world.

These are facts. These are the results with which Mexico, after a hundred years of struggle, many of them years of conflict, can look into the face of the new century.

What the Republic of Mexico has accomplished in the material, intellectual, and spiritual advances of civilization, are what we are celebrating all over the country during this happy September of 1910. One day, one single moment commemorative of the passing from the old to the new, could not be enough, and the whole month, therefore, was crowded with ceremonies and spectacles to impress the people with the improved conditions under which they live, and to dedicate lasting memorials of the past, or promises for performance in the future.



(Courtesy of *El Imparcial*, Mexico City.)

THE FONT FROM WHICH HIDALGO WAS BAPTIZED.

This simple church utensil of wood and stone was presented to the Mexican National Museum on September 2, 1910, for permanent preservation. It was carried on a decorated car, surmounted by a liberty cap and a shield of arms. A band of school children sang national airs as it passed along the street.

To describe every event of the month, or to give in sequence of time a narrative of the programme of the celebration as it unfolded itself from day to day, would be to distort the perspective, and to throw out of proper focus the various events of the centenary. Many of them necessarily took place according to their immovable relation to the calendar; others were arranged to suit the convenience of prominent persons and local traditions, while a large number of exercises had to be arranged at hours not already occupied. Every day, however, was given to functions of moment, and entertainments for the people were offered on most of them. The 1st of September saw the inauguration, at the hands of the President of the Republic, of the new general asylum for the insane, and on that evening the

street illuminations, which attracted so much attention from both resident and visitor, were displayed. Thereafter the ceremonies and festivities came thick and fast.

Functions of ceremony and hospitality on the part of the Government to the numerous guests invited to participate in the centennial celebrations of the notable historical events on which the centenary is based, and dedication of memorial monuments to these events or inauguration of public buildings as permanent proofs of Mexico's progress—into these three classes most naturally fall the interesting occurrences of the month.



(Courtesy of *El Imparcial*, Mexico City.)

IN HONOR OF THE FLAG.

On September 6, 1910, 60,000 school children assembled before the National Palace in the City of Mexico, and as they were reviewed by President Diaz they took an oath of allegiance to the national flag. This was one of the most touching ceremonies of the celebration.

The City of Mexico was filled with visitors from all parts of the Republic, who came to show their patriotism, many being invited, as officials, to occupy their proper positions as hosts to the foreign delegations; others were attracted to the capital as spectators, knowing that they would see the most complete panorama of their native land ever spread before the world. To these loyal sons and daughters must be added the many strangers drawn to the city by a desire to enjoy themselves, and also the numerous formal delegations from foreign Governments, who, as specially invited guests, contributed to the general cosmopolitan effect of the celebrations.



Photograph by C. B. Osborn.

SCENE AT THE DEDICATION OF GROUND FOR THE ERECTION OF A STATUE TO GEORGE WASHINGTON BY THE AMERICAN COLONY OF MEXICO ON CALLE DINAMARCA, MEXICO CITY.

Mr. C. R. Hudson, Vice-Chairman of the Washington Monument General Committee, addressing the audience. President Diaz and Cabinet in the foreground

The American Ambassador, specially appointed for the occasion, was the first to arrive, accompanied by the delegation representing, through the Congress of the United States, the people of that neighboring Republic. They were received in state by officials of the Mexican Government, and conducted to a splendid mansion reserved for their exclusive use. On the same day came the Japanese Ambassador with his suite, to whom was accorded similar honors. Italy, Germany, China, Spain, and France also sent special Ambassadors. Other nations had sent special Ministers, Europe being well represented, while Latin America did exceptional honor to her sister Republic in the hour of her centennial. These were all given marked



(Courtesy of *El Imparcial*, Mexico City.)

CADETS OF THE MILITARY ACADEMY AT CHAPULTEPEC.

On September 8, 1910, great honor was paid by President Diaz and distinguished officials to the memory of the young cadets who lost their lives in the war of 1847.

attention by President DIAZ, September 5, 6, and 7 being set apart for special receptions in the National Palace. Honduras, Costa Rica, Guatemala, Salvador, Brazil, Uruguay, Argentina, Chile, Venezuela, Colombia, and Cuba were present on these days, but the delegates from Panama, Ecuador, and Peru were delayed in their arrival.

Besides these diplomatic delegates—and the receptions to them included also the permanent diplomatic corps of all nations—there were from abroad many other official guests of the Republic. The Congress of Americanists had been invited to hold their session in the capital; the sailors of Brazil, of Argentina, of Chile, and of Germany, were the nation's guests; and the delegation of journalists from the

United States and Canada were likewise honored. All were made cordially welcome, and all were practically given the freedom of the city.

Hospitality to invited guests, as well as to distinguished visitors and members of society, was unceasing. No day passed without some such material token of the Republic's gratitude that the new century had dawned for it so auspiciously. Banquets, breakfasts, luncheons, teas, and receptions seemed to come without interruption. The beautiful café in Chapultepec Park was busy from morning to night with fêtes, garden parties, and balls. In the National



(Courtesy of *El Imparcial*, Mexico City.)

PRESIDENT DIAZ, AMBASSADOR PALAVIEJA, AND OTHER SPECIAL DELEGATES AT THE LAYING OF THE CORNER STONE FOR THE STATUE OF "ISABELA LA CATOLICA," PRESENTED TO MEXICO SEPTEMBER 9, 1910, IN HONOR OF THE CENTENARY OF INDEPENDENCE.

Palace were given the more formal banquets, at which President DIAZ himself presided. Two of these deserve special mention, although only because of the feelings expressed, but not by any means on account of any cordiality lacking in the others.

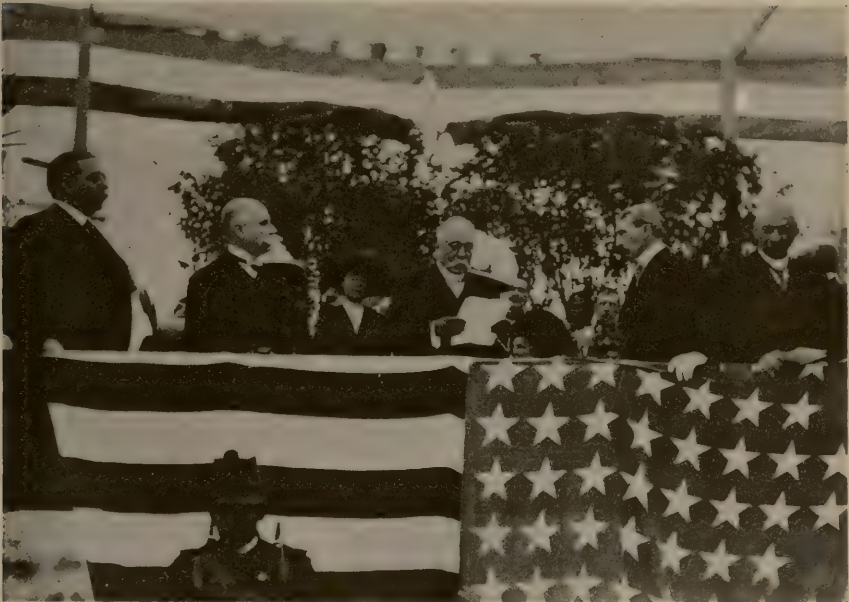
The grand banquet offered by the President of the Republic to the foreign diplomatic corps, to special representatives of foreign nations, and to high government officials of Mexico, was given in the National Palace on the evening of Sunday, the 11th of September. This included the ladies accompanying them, and was noticeable on that account. President DIAZ spoke to his guests concerning



THE MONUMENT TO INDEPENDENCE IN MEXICO CITY.

On September 16, 1910, the Independence Day of the Republic, this stone column, on the Paseo de la Reforma, was dedicated in the presence of all the diplomatic representatives and thousands of soldiers and citizens.

the occasion for which they had come together, and the formal response in behalf of all the diplomatic representatives was intrusted to Special Ambassador GUILD. Ambassador CURTIS GUILD, jr., was the host at a luncheon in honor of the Mexican Government at half past 1 of September 14. The list of invited guests was necessarily restricted to officials of the Government, to the resident and special diplomats, and to the members of those committees who had been delegated to act as hosts to the American commission during their stay in the capital. There were nearly 150 covers laid, and the scene in the banquet hall of Chapultepec Café, in itself beautiful,



(Courtesy of *El Imparcial*, Mexico City.)

PRESIDENT DIAZ REPLYING TO THE ADDRESS OF THE AMERICAN AMBASSADOR, HON. HENRY L. WILSON, AT THE LAYING OF THE CORNER STONE OF THE MONUMENT TO GEORGE WASHINGTON, PRESENTED TO MEXICO BY THE AMERICAN COLONY, SEPTEMBER 11, 1910, IN HONOR OF THE CENTENNIAL CELEBRATION OF THAT REPUBLIC.

with an outlook upon the magnificent park adjoining, was extraordinarily brilliant. The presence of ladies, the variety of types from North America, Europe, from Asia and from China, the glitter of uniforms worn by the distinguished guests, made a picture that may never be reproduced again. Ambassador GUILD's speech was received with whole-hearted enthusiasm; and as he sketched the development of liberty in Mexico, her industrial and commercial progress, and her national triumphs, and concluded with a tribute to the enduring friendship between the United States and the neighbor, now so close across the border, quoting finally, in the sweet Castilian, a favorite poem of the Mexican people, and then calling upon

all to drink the toast to lasting peace and the brotherhood of all nations, there was an outburst of emotion that proved beyond a doubt how sincere is the regard between the Anglo-Saxon and the Latin, and how we all, in the bottom of our hearts, hope that the toast will be permanently realized.

It has been from the first the intention of the Mexican Government



(Courtesy of *El Imparcial*, Mexico City.)

THE STATUE OF HUMBOLDT PRESENTED BY EMPEROR WILLIAM IN BEHALF OF GERMANY TO MEXICO, SEPTEMBER 13, 1910, IN HONOR OF THE CENTENARY OF INDEPENDENCE.

to impart to the centenary celebration a character that should register in lasting form this epoch in the history of the nation. It is evident that no pains were spared to make the occasion one that must live in the memory of those who were contemporary with it, but equally important has been the dedication of monuments to mark for those who come in the future the end of the old and the beginning of the new centuries. For this reason great value was laid on certain permanent improvements illustrating the recognition by the Republic of the needs of modern life.

Mention has already

been made of the first official act, the inauguration of the new insane asylum, in which the poor unfortunates can be housed according to the demands of progressive science. This was by no means the only structure, however. The corner stone of a new prison was laid; a central seismologic station, equipped with all the latest scientific instruments, was inaugurated; several fine new public-school buildings were opened:



Courtesy of El Imparcial, Mexico City.

THE MONUMENT TO BENITO JUÁREZ, ON THE ALAMEDA, IN THE CITY OF MEXICO, DEDICATED BY PRESIDENT DÍAZ, SEPTEMBER 18, 1910.

the Young Men's Christian Association was dedicated to service by the President of the Republic; exhibitions of hygiene and of agriculture were established; the remodeled Municipal Palace was installed; important new works for the introduction of abundant pure water into the capital were inaugurated; the corner stone of the new legislative palace was laid by the President; and the desire of the educational bodies of the Republic was fulfilled when the foundation of a really National University was celebrated. And such permanent additions to the nation's welfare were by no means confined to the capital. In many cities throughout the land buildings of equal merit and value were inaugurated or begun, so that the next generation may look back with pride to their inheritance from this notable year of 1910.



(Courtesy of *El Imparcial*, Mexico City.)

THE MEXICAN HERO, GENERAL BRAVO.

One of the fine floats in the historical pageant given in Mexico City September 15, 1910.

Yet, as might be expected in art-loving Latin America, their æsthetic sense would not be satisfied by structures, however beautiful, devoted to material purposes alone. To mark the centennial year, there must be also monuments in stone for no other purpose than to please the eye. Knowing and appreciating this feeling, other peoples contributed right royally, so that the result is an international tribute to the growing beauty of the City of Mexico. Japan presented an exhibition of her products for the Natural History Museum; the Government of Mexico placed memorial tablets on houses and memorial stones in places famous for their connection with the lives of national heroes; Spain sent over for exhibition examples of modern painting, and they were displayed in an art gallery especially constructed for that purpose; beautiful and imposing monuments were



Photograph by C. B. Osborne.

THE CIVIC PARADE IN MEXICO CITY, SEPTEMBER 14, 1910.

Officers of the Mexican Rural Police (*Rurales*) entering the Cathedral of Mexico City to place flowers on urns containing ashes of martyred heroes of Mexican Independence.

dedicated, one to Independence, in the Paseo de la Reforma, and another to the hero JUAREZ, in the Alameda fronting the Avenida Juarez. Undoubtedly, however, the contributions of such tokens from abroad will be one of the strongest proofs of the movement of Mexico toward international friendships. This is a sign of the times, and shows the gradual dissolution of traditional barriers. So the people of Mexico interpret it, and they therefore received with heartily good sentiment these gifts from other peoples. Spain presented to Mexico a monument to be erected and for which the corner stone was laid in Chapultepec Park, to ISABELA, the Catholic; the



(Courtesy of *El Imparcial*, Mexico City.)

THE CAR OF MONTEZUMA IN THE HISTORICAL PAGEANT, SEPTEMBER 15, 1910.

the park is free; there are theatrical performances, concerts, gymnasium apparatus, and children's playgrounds, and the object lesson thereby supplied will stimulate other cities to similar undertakings.

One touching instance in this class was the delivery to the perpetual custody of the National Museum of the ancient font in which the infant HIDALGO was baptized. It was solemnly presented to the nation by the little town of Cuitzeo, and the inhabitants of the place wept at the sorrow of losing it, but rejoiced that they could contribute this much at least to the treasures of the nation.

These ceremonies and functions, among the many that occurred throughout the month, served as record in a quite serious sense or as

American colony in the country gave a monument to WASHINGTON, and the corner stone for it was dedicated in the residence district on the Calle Dinamarca; the French colony offered a monument to PASTEUR; the German Emperor gave a statue of BARON VON HUMBOLDT, who in his time did so much for Mexico; the Italian colony a statue to GARIBALDI; the Turkish colony a monument, surmounted by a clock, to be placed in the garden of the school for girls; China gave the nation several priceless works of art. Of this character, too, was the reception by the Government of the Balbuena Park, given as a playground to the people of the Federal District for their own. Everything in



Photograph by C. B. Waite, Mexico City.

THE HISTORICAL PAGEANT OF MEXICAN LIFE.

This pageant, presented during the centennial celebration in the capital of the Republic, was a splendid triumph of art and learning. Many floats were in the line, presenting scenes from prehistoric and contemporary events. The old farm life of early days was illustrated and the float was drawn by typical oxen so much used in the country. Cortes and the succeeding viceroys were represented in the procession with all the accuracy that scholarly research could indicate.

a material memorial of the intention of the Republic. . To the visitors and guests of the Government they gave a wonderful demonstration of the loyalty and ambition of the people.

The festivities can be preserved only in descriptions of the events, although the pen of the poet deeply alive to the charms of Latin America is needed to do them justice. Many of the days, many of the evenings of the month were set aside for parades, for street celebrations, for spectacles to please the eye; the nights were full of amusements offered freely by the Government to those who chose to enjoy them. There were torchlight processions, marches of civic



(Courtesy of *El Imparcial*, Mexico City.)

CORTÉS, THE CONQUEROR OF MEXICO.

In the historical pageant held in the City of Mexico September 15, 1910, great accuracy was observed in all details, and Cortés is here represented exactly as he must have appeared nearly 400 years ago in the streets of the Aztec capital.

employees, parades of floats arranged by the people themselves, and columns of citizens organized for the patriotic intention of paying tribute of floral offerings to the heroic dead. The streets seemed continuously alive with formal or informal groups of moving people. By day the cheerful sun shone down with steady warmth—only twice did it rain, and then not enough to interrupt the festivities—and the entire populace was out of doors; by night the tropic moon offered her light in plenty, but this would not suffice for a modern city like Mexico. Even in ordinary times the supply of electric force gives 400,000 candlepower, but for this occasion double the quan-

tity was used, so that the brilliant illumination of the main streets, and especially of the *Plaza de la Constitución* (the famous *Zócalo*), around which are situated the National Palace, the Cathedral, and the Municipal Palace, was one overwhelming blaze of light. Many other buildings, both public and private, were decorated with electric tracery, so that if HIDALGO had looked down upon the scene he might have imagined himself in fairyland.

The procession of school children in honor of the national flag (on the 6th), the grand historic procession with numerous floats (on the 15th), and the military and naval parade (on the 16th) are the three great events which must have made a lasting impression in the minds

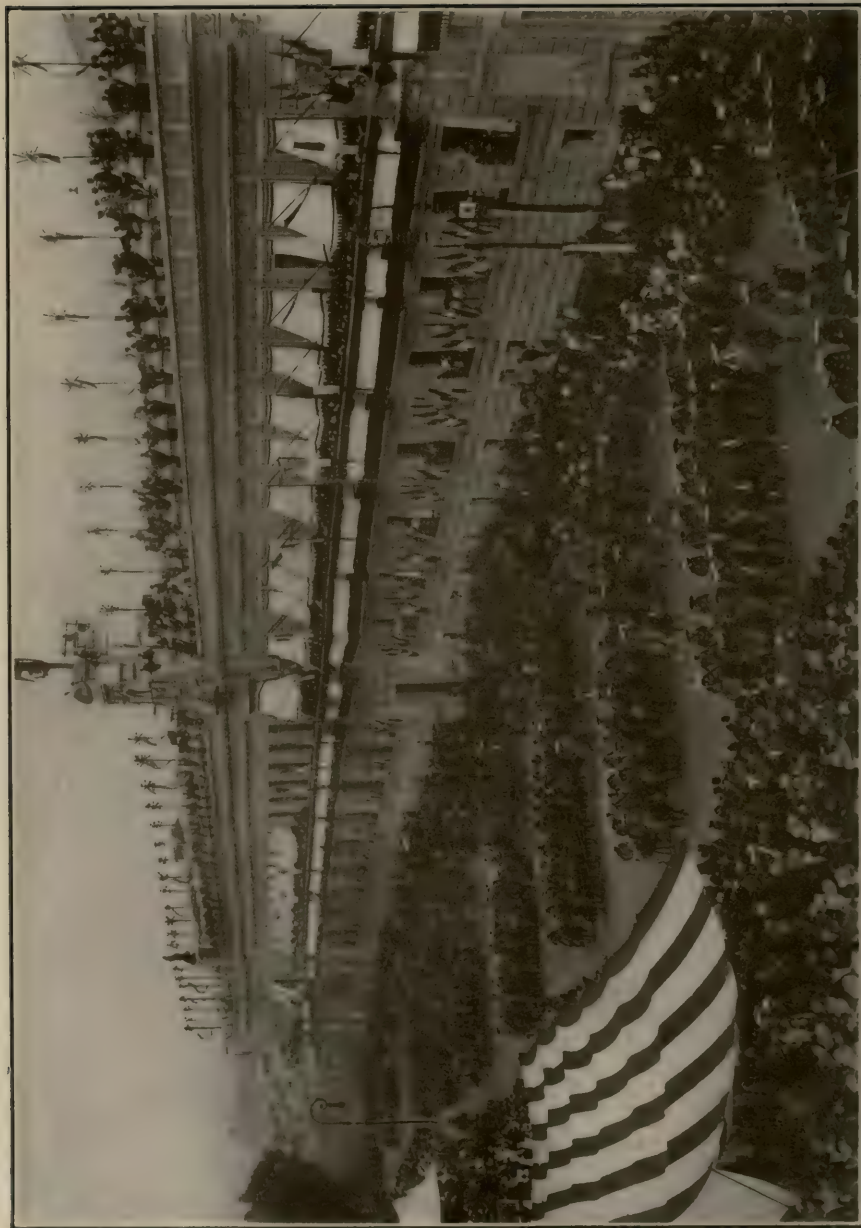


(Photograph by C. B. Waite, Mexico City.)

THE SAILORS OF THE BRAZILIAN NAVY IN THE MILITARY AND NAVAL REVIEW IN THE CITY OF MEXICO, SEPTEMBER 16, 1910.

of all the people of the nation, but were equally appreciated by the many visitors from abroad, who grasped through this object lesson an idea of the strength and solidity of the Mexican Republic. In many of the cities of the country, also, demonstrations of a similar character were given on the two national holidays (September 15 and 16), so that the effect was by no means restricted to the capital alone.

As a matter of sentiment, and it is a reason for congratulation that sentiment is a strong factor in the conduct of the people of Latin America, the prettiest sight of the century was on Flag Day. Every heart was touched, every breath was drawn a little quicker as the 60,000 school children moved into the *Plaza de la Constitución* and



THE MILITARY AND NAVAL PARADE IN THE CITY OF MEXICO, SEPTEMBER 16, 1910.

The famous "Rumles," a body of soldiers doing police duty, were this year gathered in stronger force than ever before for the centennial celebration in the capital. They were heartily applauded by friend and stranger for their fine appearance.

drew up before the National Palace on the morning of the 6th of September. President DIAZ was on the balcony of the Palace under the Liberty Bell, and he reviewed these coming fathers and mothers of the nation with as distinguished solemnity as he afterwards gave to the soldiers of the Republic. The children sang patriotic songs, they burst out into the national anthem, and then, kneeling there under the skies within sight of the old cathedral and before the delegated authorities of their country, they solemnly swore allegiance to their country's flag. A republic with this foundation on which to build need have no fear of the ultimate triumph of its ambitions, no matter what dangers from without may assail it.

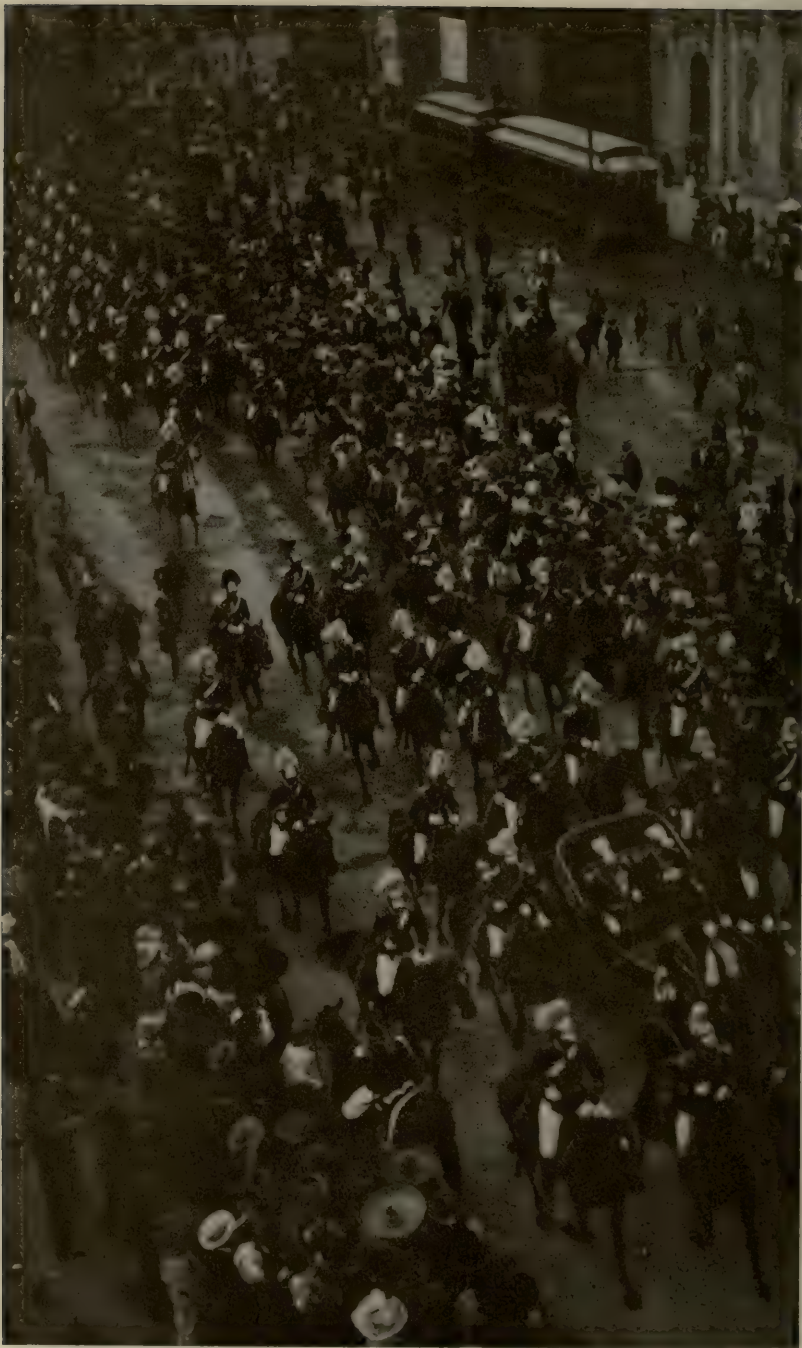
Two days are combined into one great holiday in Mexico, the 15th and 16th of September, and are every year celebrated with parades, invocations to patriotism, and merry-making. This year a decidedly international character was given to the latter day, because of the presence in the military and naval procession of invited guests from abroad who had, immediately preceding it, attended the dedication of the monument to Independence by the President of the Republic, and of sailors from

foreign nations sent to Mexico to take part in this parade. The ceremony at the monument occurred at 9.30 a. m., and was the unique feature of the day, because it is the custom throughout Mexico, as well as in the national capital, to devote this day of every year to a procession. It was an exceptionally brilliant line of march, however, on this centennial anniversary. Fighting men from five nations passed in review before the spectators, the government officials, and the President, and was undoubtedly the greatest military spectacle ever seen in Mexico. The line was led by the Mexican military cadets up the Avenidas Juarez and San Francisco, around the Zócalo, and before the reviewing stand of the National Palace. Then came the German sailors, followed by the French, the Argentinos, and the Brazilians.



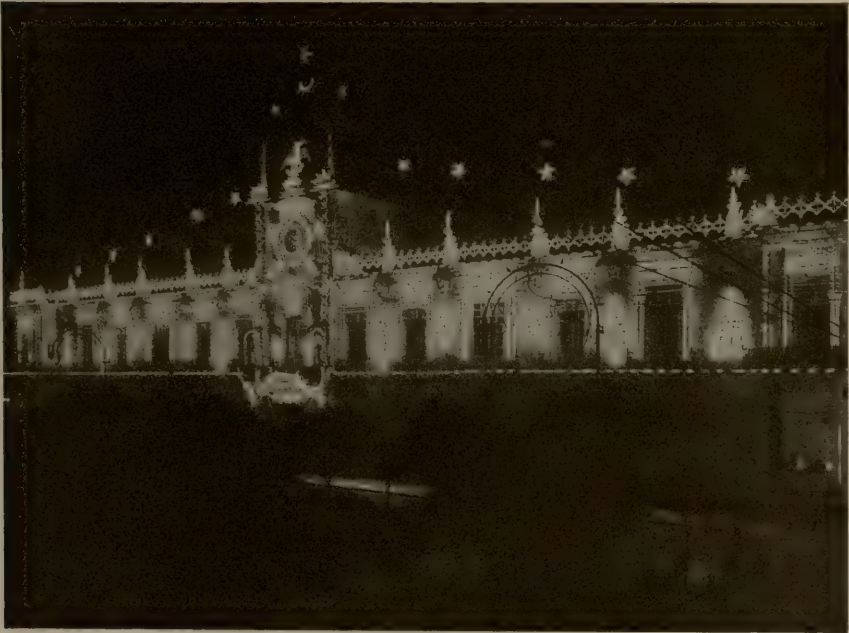
THE CATHEDRAL IN THE CITY OF MEXICO.

This beautiful edifice was at night ablaze with electric lights, its twin towers outlined against the dark sky. The flag in its green, white, and red was very clear. When the fireworks were displayed they added to the brilliancy of the scene.



PRESIDENT PORFIRIO DIAZ, IN HIS CARRIAGE AND ESCORTED BY HIS GUARDS, ON MEXICO'S INDEPENDENCE DAY.

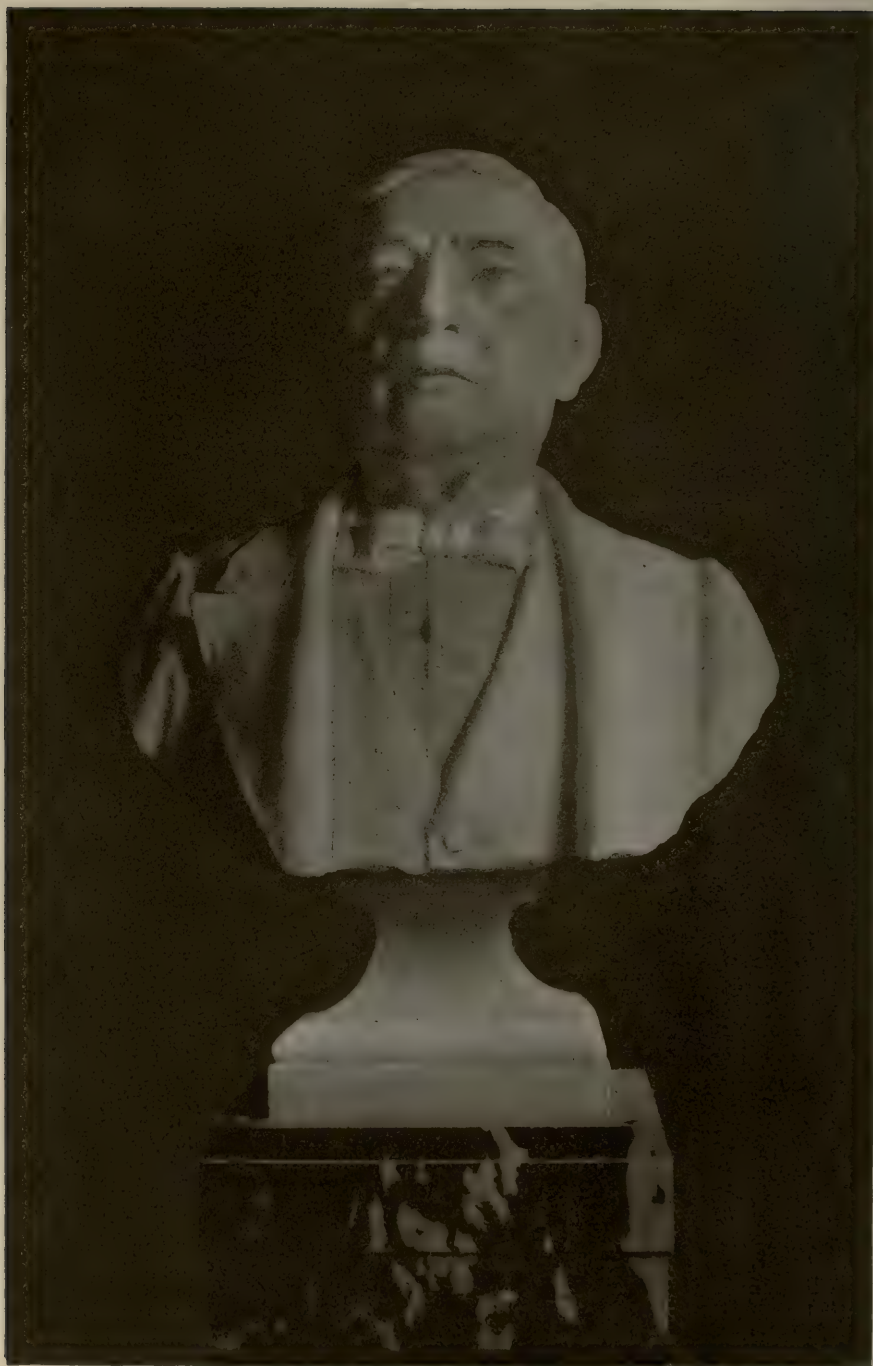
The Mexican soldiery made a splendid showing. There were infantry, artillery, and cavalry, but of the three the artillery seem to have been most admired, because of their alertness and completely modern equipment of guns and batteries. Bringing up the rear, yet undoubtedly first and foremost in the hearts of their countrymen and countrywomen, were the "Rurales," all mounted, of course, and all dressed in their serviceable uniform of buckskin and silver trimmings, a uniform typical of old Mexico turned to the advantage of the new. Cheers greeted them, flowers were thrown at them, and the admiring crowd of men, women, and children closed in behind them, proud that they could thus, even if unofficially, end the procession which had taken



THE GOVERNMENT PALACE AT GUADALAJARA, MEXICO.

nearly three hours to pass a given point. The remaining part of the afternoon and the evening were devoted to jollity and amusement of all kinds, as the Government had granted free entertainment to the people for whatever diversion they liked. Congress opened on that evening as usual, so that, except for the remarkable brilliancy of the parade and the presence in the capital of many invited guests from abroad, the holiday of the 16th of September, 1910, was not essentially different from that of other years.

But the 15th of September, 1910, was a day absolutely unique in the history of the Republic. For that reason the narrative abuses the chronological order and reserves the description of it until the



Photograph by Harris-Ewing.

JUAREZ.

Marble bust of Benito Juárez; presented by the Mexican Government to the Pan American Union, and which occupies a position in the Hall of the Patriots.

last. Mexico is singularly fortunate in that the nation can point, with a very precise limitation of time, to almost the very hour in which the first successful cry for liberty was uttered. Historical investigation has determined that HIDALGO rang the liberty bell early on the morning of September 16, 1810, from which hour the struggle was continued until success was achieved. Tradition, however, prefers to retain a moment shortly before midnight on September 15 for the initiatory cry for freedom. So it has been celebrated in the past, and so it was celebrated this year.

During the day of the 15th of September a great national historic parade was presented. The incidents in it were carefully prepared



THE "SALÓN DE ACTOS" IN THE SCHOOL OF MINES, MEXICO CITY.

Among the lesser functions taking place in Mexico during the centennial celebration in September, 1910, was an interesting Congress of Students, which met in the School of Mines to discuss conditions of study and life.

by the best authorities, the historical dress, costumes, and accouterments were exact reproductions of the age they illustrated, and the allegorical floats pictured incidents which stand out in the life of Mexico from the historic epoch of the Aztecs under MONTEZUMA down to the early days of the Republic.

The National Palace was taken by the invited guests—diplomats, special delegations, government officials and distinguished personages of the country—who were received by President DIAZ in state all morning, and who in their turn offered congratulations on his completing, in such splendid health, his eighty years of active life. The procession passed up the Avenida San Francisco and in front of the



PENSIONERS OF THE WAR AGAINST THE FRENCH, WHO WERE HONORED
DURING THE CENTENNIAL CELEBRATION.



MAXIMILIAN'S STATE COACH.

A relic of the grandeur of the second empire, now in the National Museum, City
of Mexico.

palace, from the balconies and even the roofs of which these spectators enjoyed the pageant. It was a fascinating presentation of Mexico's history, and even without the well prepared pamphlet giving an outline of the details, or the photographs that could later be purchased, no one who saw the review can ever forget it.

Nor can one ever forget the gay scene in the Zócalo. This square was jammed with people; the roofs of the houses were crowded with them; every window had its balcony loaded. The police did the best they could to keep the multitude in place, but they overflowed into the streets, up the lamp-posts, and upon the tops of the carriages and



(Courtesy of *El Imparcial*, Mexico City.)

THE GREAT PYRAMID OF THE SUN AT SAN JUAN TEOTIHUACAN.

The Mexican Government, during the centennial celebration in September, 1910, not only provided entertainment for the people, but also took care that many visiting associations should find food for permanent study. The delegates to the Seventeenth International Congress of Americanists were therefore sent as guests of the Nation to study this famous prehistoric monument.

street cars. Yet it was an orderly, good-natured crowd, and when toward the end of the afternoon the people went home, streaming away through every available exit, scarcely an accident had occurred to mar their pleasure.

But in the evening there took place the wonderful event of the day. The crowd came back. One hundred thousand people filled the Zócalo, the streets, the surrounding buildings, the roofs, the trees, and even the towers of the cathedral. As the darkness settled, the sky was made gay with fireworks; bombs exploded in the air, balloons ascended, and rockets dazzled the eyes. The innumerable electric



BANQUET GIVEN BY THE MEXICAN COLONY IN NEW YORK CITY ON THE NIGHT OF SEPTEMBER 17, 1910, IN HONOR OF THE CENTENARY OF MEXICAN INDEPENDENCE.

This magnificent function, given at the Hotel Astor, was participated in by the consular representatives of all the foreign countries accredited to the city, together with many other distinguished guests. The presence of the ladies lent a brilliant aspect to the occasion. Patriotic speeches were made by the Mexican Vice-Consul, Señor Manuel A. Esteva Ruiz, to whose foresight and energy the success of the affair was mainly due, and by other prominent guests. A dinner was also given on the same date in Washington, D. C., by Señor Luis Ritcoy, *Chargé d'Affaires* of the Mexican Embassy, to the diplomatic representatives and other official guests.

lights, spread over the lines of the cathedral, of the palace, and of the City Hall, made each of them stand out as sharp and clear as if chiseled in fire. The bands played, the swaying mass passed jokes among themselves, but only to pass the time. They were waiting. A selected chorus of young voices sang patriotic hymns, and occa-



(Courtesy of *El Imparcial*, Mexico City.)

THE NEW BUILDING FOR THE SECRETARY OF FOREIGN AFFAIRS, MEXICO CITY, AND THE RECEPTION ROOM OF STATE.

sionally a few *vivas* would break into the murmuring of the otherwise undemonstrative multitude. And then, at 10 minutes before 11, the chorus, led by the united bands of the garrison, burst out into the national anthem. From the roof of the cathedral a thousand rockets of green, white, and red shot into the air. The crowd began to shout, but suddenly became still. Onto the balcony in the center of the National Palace stepped President PORFIRIO DIAZ. At 3 minutes before 11 he grasped in one hand the cord that led to the clapper of the liberty bell, while the other held a well-worn flag of the Republic. The bell rang out its note, the President called "*Viva la Constitución! Viva la Libertad! Viva Mexico!*" the flag spread to the breeze, and the mass of people joined with one mighty shout in these *vivas* or added their voices to the national anthem,

played and sung again with all the power of the chorus and of the band. It was a nation marking time at the end of its hundred years of growth. The old century had gone by, the new century had begun, and not for another hundred years could this same moment come again.



THE FLAGS AND COATS OF ARMS OF THE AMERICAN REPUBLICS ∴ ∴ ∴

MEXICO.

THE Republic of Mexico, officially called the "United Mexican States," was one of the two great vice-royalties of Spain in the new world. Mexico and Peru represented the dominions of a territory extending from the undefined north to the extremity of South America. Mexico as New Spain retained its identity, but Peru was subdivided into Rio de la Plata (Buenos Aires), New Granada, and the original Peru.

The revolutionary struggle that ultimately resulted in the independence of the nation began in 1810, but success was not attained until the establishment of independence from Spain in 1821. The first Mexican Congress was held in 1822, when a regency was installed and an emperor was named. The question then arose concerning a flag and coat of arms for the new American empire, and the provisional government, on November 2, 1821, decided upon the coat of arms to mark their new nation. In doing this they went far back into history and tradition, choosing emblems of significance from the legends of their own country.

The Toltecs were the first settlers of whom any definite monuments have remained. They entered the territory of *Anahuac*—the rich valley of Mexico—some time before the close of the seventh century. They lived there for four hundred years, and then mysteriously disappeared. After another hundred years had passed, the most noted of their successors, the Aztecs, wandering into the valley from the north, seem to have spread throughout the country and to have determined to occupy this beautiful spot. Their decision was the result of superstition and belief in auguries.

They had halted, in 1325, on the shore of the principal lake. "There they beheld, perched on the stem of a prickly pear, which shot out from the crevices of a rock that was washed by the waves, a royal eagle of extraordinary size and beauty, with a serpent in its talons, and his broad wings opened to the sun." They decided, then, to make this the site of their future city, and they laid its foundations on this spot by sinking piles into the shallows, for the low marshes were half buried in water.



MEXICO.

The descendants of these people developed into a strong and partly civilized nation, and although conquered by the Spaniards, their influence was so powerful that the inhabitants of Mexico, at the beginning of the struggle for independence, were sympathetically even more Indian than Castilian. The symbol of revelation had therefore been preserved throughout the colony, and on the declaration of independence it was deemed the most fitting emblem for the new nation. In some of the earlier hieroglyphics a bird was given as the prey of the eagle, but the serpent has always been accepted as the real object grasped in the eagle's claws.

The short-lived Empire desired no better device for its coat of arms. Previous to the date of the first legislative acts, ITURBIDE, at first a Spaniard, but later a revolutionist, had promulgated (February 24, 1821) the celebrated "Plan of Iguala," known as *Las Tres Garantías*, among its many clauses being one declaring for the absolute independence of Mexico as a moderate monarchy. The three guaranties were symbolized in the flag adopted at the time. It consisted of three vertical bars,^a respectively *green*, *white*, and *red*, the green being next the flagstaff. *White* denoted the purity of the Roman Catholic religion; the *green*, independence; the *red*, the union of the Spanish element with the Mexican nation. The *soberana junta provisional gubernativa* (supreme provisional council of the Government) authorized this flag November 2, 1821, and selected the coat of arms in the following language:

The arms of the Empire for all classes of seals shall be solely the nopal growing on a rock which rises from the lake, and perched on it, by his left foot, an eagle with an imperial crown. * * * The national flag and banners * * * shall be a tri-color, adopting forever the colors green, white, and red in vertical stripes; on the white to be designed a crowned eagle.

This decree was confirmed, almost word for word, on January 7, 1822.

The First Congress of the Mexican nation convened February 24, 1822. ITURBIDE abdicated March 20, 1823, and twenty-five days later, on April 14, 1823, the sovereign Mexican Congress decreed as follows:

1. The coat of arms is a Mexican eagle, perched on its left foot, upon a nopal growing from a rock in the waters of the lake, with his right foot grasping a snake that he is in the act of tearing to pieces with his beak; bordering this armorial design are two branches, one of laurel, the other of evergreen oak, conforming to the description that was used by the Government of the first defenders of independence. 2. In regard to the national flag, this is the same as the one hitherto adopted, with the sole difference that the eagle is to be without the crown, and this change must be made in the coat of arms also.

Such is the official description of the design to-day.

^a The bars were originally horizontal, but were changed to vertical by the First Congress.

NATIONAL HOLIDAYS OF THE AMERICAN REPUBLICS

MEXICO.^a

THE Republic of Mexico, like the other Republics of Latin America, has an abundance of holidays national in character, while each city and village enjoys local *fiestas*, originating either in some local and perhaps Indian superstition, or inherited from Spanish times when every church designated some special occasion for its particular celebration.

Of the two great popular holidays, one comes in May, the other in September. The 5th of May (*cinco de Mayo*) commemorates the great victory of the Mexican forces, led by Gen. PORFIRIO DIAZ and Gen. IGNACIO ZARAGOZA, over the French attacking Puebla, on May 5, 1862. It was essentially a military victory, and its celebration gives occasion for arousing the martial spirit and enthusiasm of the united people.

September 15 and 16 are two days combined into one holiday. This is essentially a holiday of sentiment, for it commemorates the beginning of the struggle for freedom which culminated successfully in 1821, when Mexico won its independence from Spain. September 15 is also, by a remarkable turn of fortune, the birthday of President PORFIRIO DIAZ, and the two events are celebrated together as "joyous and picturesque days," beloved by all the people.

During the year 1810, Queretaro was the center of revolutionary conspiracy, and the plans of several of those most active in plotting against the authority of Spain were almost ripe. Chief among them were ALLENDE and ALDAMA, who had for months worked secretly but earnestly to keep alive the spirit of discontent. These men, although eclipsed in fame by the greater name of HIDALGO, deserve record as compatriots with the national hero in the crisis of that year.

There were at the moment no signs of discovery or treachery and the day was appointed on which the cry of independence should be raised. A great fair held at San Juan de los Lagos, commencing on the 8th of December, seemed to offer a good opportunity, and preparations were made to excite an uprising on that day. The Government had intimation of the plot, however, as the secret meetings had been communicated to the Postmaster-General of Mexico. Fur-

^a The facts of this narrative are taken chiefly from Bancroft's History of Mexico, Vol. IV, Chap. V.

ther information was given by a subordinate of the provincial infantry battalion of Guanajuato, where HIDALGO was at the time.

MIGUEL HIDALGO Y COSTILLA was the *cura* (priest) of the parish of Dolores, a town lying in the higher level of the *Sierra de Guanajuato*. At first he appeared to take but casual interest in the revolutionary movement, but he was a born leader, and when he had once committed himself to the idea of independence he set no bounds on his enthusiasm or conduct. When the discovery of the plot became known to the principals they hastened to Dolores to discuss their plans with HIDALGO, as they turned to him instinctively as a leader. His decision was immediate and final. "Action must be taken at once," he said. "There is no time to be lost." HIDALGO communicated his intention of raising the cry of liberty without delay. The workmen near by were assembled and a number of the populace gathered before the cura's gate, ready to take part in the enterprise. Weapons which had been secretly made were brought out and HIDALGO distributed them with his own hand. He then cried in a loud voice, "Viva Nuestra Señora de Guadalupe! Viva la independencia!" and caused the church bell to be rung, thus summoning his flock to revolution instead of to mass. The die was cast, and from this hour in 1810 the struggle was to cease only when Mexico was at last recognized by Spain as an independent nation.

Authorities differ in the statement as to the exact hour at which HIDALGO rang the bell in the church at Dolores, but the best evidence obtainable indicates that it was in the early morning of September 16, rather than late in the night of September 15. As the inspiration came, however, undoubtedly during the evening hours of September 15, 1810, both days are celebrated, as the event is considered by the people as worthy of two days of holiday, both by itself and as a sign of national tribute to HIDALGO, often called the "Washington of Mexico."



FROM THE RIO GRANDE TO PANAMA^a " " "

BETWEEN June 30 and August 5 of the current year, in company with Arthur Purdy Stout, Esq., of New York, it was my good fortune to make a 7,300-mile journey—from Philadelphia to Mexico City, via St. Louis; from Mexico City to Salina Cruz; thence along the Pacific coast to Panama, touching at several ports and in two instances journeying inland; returning from Colon to New York by way of the Panama Railroad steamships. Director General BARRETT has done me the



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honor to ask for my impressions of the regions traversed; and from the standpoint of an enthusiastic advocate of the objects for which the Pan American Union was established, it is a pleasure to accede to his request. I may say that everywhere I went I found the value of the work the Union has done, and the value of the work that it will do, eagerly recognized, and there was in evidence on the part of our Latin-American neighbors to the southward an entire willingness to cooperate in all measures that will make for a better mutual

understanding between the United States and each and every one of her sister republics. I was only too glad to contribute my unofficial mite wherever and whenever I could toward the furtherance of what should be made not merely the purpose of the Union, but the mission of every good American whom a pleasure journey or a business venture brings into contact with peoples to whose manifest points of excellence we of the brisk and stirring northern races have sometimes done scant justice.

Anyone who travels for the first time among those whom my friend ARTHUR RUHL has called "the other Americans" must be struck by the grave and ceremonious courtesy which is the universal habit among the men and women of all classes. The poorest peon returns your greeting with a polite salutation that puts to shame our careless

^a By FULLERTON L. WALDO, F. R. G. S., Associate Editor Philadelphia Public Ledger.

and abbreviated formulas of welcome and leave-taking. Americans who had charge of construction gangs in railway work in Mexico informed me that foremen set in authority over track laborers soon found that the way to get the best results was not to browbeat and "bully rag" the men, adding the toe of the boot at the heel of an imprecation. If you let them do the work in their own way, there were, they said, no better railway workmen in the world. They labored at a more deliberate pace, it is true, but they labored faithfully and steadily, and with a just allowance for different climatic conditions it could not fairly be said that their performance was inferior to the proverbial diligence of a gang of Italians in the United States under the watchful eye of an Irish foreman.

We had a striking illustration of the rustic Mexican's appreciation of the amenities during our climb of Popocatepetl. We had two guides, a cook, and a "mozo," or general utility man. At luncheon time on the first day our cook put all the delicate fare, including such comestibles as sardines, cookies, and sweet chocolate, on the side of the brook where the two señores happened to be sitting, and retired to the farther bank with the other three men to a humble diet of tortillas, or pancakes of Indian corn. We did not choose to "stand for" this dietary demarcation on an expedition where everything depended on a cordial spirit of cooperation between master and man. We therefore crossed the brook with their full share of the good things, and felt well rewarded by their effusive and radiant appreciation. All the way to the painful summit and back they did their best for us. Perhaps it would be well if we Americans crossed the red torrent of the Rio Grande that separates Texas from Mexico in the same spirit—the spirit of cordial willingness to go a little more than halfway to give as well as to take. I believe that is the spirit of the Pan American Union if I accurately comprehend its purpose.

There are erroneous impressions abroad in the United States concerning the climate of Mexico and the countries to the southward. As soon as I announced my intention of traversing the country in midsummer everybody said at once, "But won't it be dreadfully hot?" There was not a mile of the 7,300 that could truthfully be described as "dreadfully hot". The nearest approach to thermic discomfort was at Nuevo Laredo, just after crossing the border, where for an hour or so at noon it was 110° Fahrenheit in the buffet parlor car. Candor compels me to state that I was not nearly so uncomfortable as I have been in Philadelphia with the thermometer at 89°. If it was hot at Nuevo Laredo it was also bone dry, and under such conditions one is ready to aver that the thermometer falsifies unblushingly. In July and August, too, the rains placate the desert dust of the long approach to the table-land of Mexico. Here is a region that is one day destined



IMPORTANT PORT WORKS AT VERACRUZ, MEXICO.

1. The new cement docks, showing the light-house in the background. 2. Interior of the customs warehouses (photograph taken March 31, 1910). 3. The new terminal station (photograph taken March 31, 1910)

to blossom as the rose and reward the cultivator with all its prolific might in return for some form of artesian irrigation.

When you come to Monterey, in a magnificent amphitheater of mountains, you are glad to hear that the first steel mills in the Republic, located there, are turning out steel rails for the supplience of the constant expansion of Mexico's extant 15,000 miles of railway. The National Railway of Mexico, lifting you through 7,000 feet of elevation in the 800 miles from Nuevo Laredo to Mexico City, is built (after the hill-climbing contest seriously begins) of 85-pound rails ballasted as firmly as they would be if laid on the roadbed of the Pennsylvania or the New York Central.

In the city of Mexico an American ought to feel at home. He is sure of a cordial welcome from compatriots when he disembarks from the Pullman that has brought him with every creature comfort in three days from St. Louis. He will find a country club with an excellent golf course (having an interesting water hazard), cement tennis courts, and cool and delightful living quarters either for "bachelor men in barracks" or for married folks. It is an exploded fallacy that the much-abused "altitude" inhibits vigorous athletic exercise. You will find pitted against each other on the courts, perhaps, the college-bred superintendent of a big smelting concern and a member of a diplomatic corps, or a corporation lawyer, or a managing director of a great railway system. You are impressed by the straightforward earnestness of these American young men, with "their souls in the work of their hands." There was a day when the carpet baggers tried to carry by assault most of the important industrial opportunities in Mexico. Just as at Panama, men of the restless, unreliable, fly-by-night stamp have been succeeded by the men of sober minds and steady habits. They have their wives and families with them in Mexico instead of at some indeterminate northern address.

President DIAZ, from the first, has encouraged the industrious and self-respecting American to engage in business in the country which is his own imperishable monument. The American has fair play here, free from suspicious espionage and onerous administrative exaction. It was said of ALEXANDER HAMILTON that he touched the corpse of the national credit and it stood upon its feet; M. LIMANTOUR, DIAZ's great Minister of Finance, has done for the monetary system of Mexico what ALEXANDER HAMILTON did for the United States. The American who invests his money in Mexican enterprises can feel that it is safeguarded against eccentric fluctuations in the money market. American paper money, by the way, is as good as gold not only in Mexico but throughout Central America, and it is quite unnecessary for the traveler to burden himself with the more cumbersome metal unless he chooses.

The rubber business, with the booming prices, seems to offer an increasingly attractive prospect to American capital. Mexico sent 19,614,810 pounds into the United States in 1909, as compared with 11,657,245 in 1908. The man who intends to put his money into rubber, however, needs to be reminded that he must not expect his profits to accrue with electric speed, and he must be prepared to make an initial outlay upon a liberal scale. Americans are more or less deeply interested in mining enterprises, which are carried on in



ON THE PAN AMERICAN RAILWAY IN MEXICO.

This new railway, which will form one of the links in the greater railway of the same name to extend from New York to Buenos Aires, traverses the wonderfully rich State of Chiapas, and will open up for settlement large tracts of land suitable for the raising of sugar cane, cotton, corn, wheat, rice, coffee, and benequen. Rubber of splendid quality is gathered, and on the plains and mountain sides cattle and sheep can be raised with none of the difficulties that exist in colder climates.

24 of the 31 States. The output of precious metals in 1907-8 was worth 124,955,170 pesos.

The State of Chiapas, through which the new Pan American Railway runs to the border of Guatemala, is particularly rich in natural resources. The business of the railway in 1909 showed an increase of 66.2 per cent over the traffic for 1908, while the imports from the United States and Europe into Chiapas increased 75 per cent. Adjacent to the railway are tracts of valuable hard timber, including

mahogany and Spanish cedar, amongst which at present only a single sawmill is at work. Cattle sent from this district to market in Mexico City bring satisfactory prices. The railway took 8,500,000 pounds of coffee out of Chiapas during the 1909-10 season, and for next year an increase of 45 per cent in the crop and 15 per cent in the acreage under cultivation is expected. Sugar land can be purchased at from \$2 to \$3 per acre. As for rubber, some 7,000,000 trees have been newly planted. On account of the youth of the trees the yield, of course, is small at present, but it is expected to be about 150,000 pounds during the current year. Oranges, limes, and pineapples take kindly to the soil in this district, and it is possible to raise two crops of corn annually on the same land. A 60 per cent increase in corn acreage is expected for 1910. Finally, labor in Chiapas is plentiful and cheap; the unskilled workman gets from 38 to 63 cents a day, and the skilled laborer receives \$1 to \$1.50.

Anyone thinking of engaging in agricultural enterprise in Mexico would do well to consider the hitherto slightly exploited State of Chiapas; but let me add that it is much the best plan for him to go there and "spy out the land" with his own eyes, rather than to accept the distant say-so of another, or place his credence in the specious scheme of some speculative company. Those who have invested their money in wild-cat projects and lost most or all of it must not unfairly lay the blame on Mexico; the fault is likely to be at the ground-glass door of some bland and plausible, but unscrupulous, American promoter.

The Tehuantepec National Railway, crossing the Isthmus of Tehuantepec from Puerto Mexico (formerly Coatzacoalcos) on the Gulf to Salina Cruz on the Pacific, through the Mexican States of Vera Cruz and Oaxaca, connects with the Pan American Railway at Gamboa (San Geronimo). The Tehuantepec Railway is 188 miles in length; it is ballasted with crushed rock and gravel, and has ties of native hardwood, California redwood, and creosoted pine to support the 80-pound steel rails. The locomotives are oil burners, and the track is sprinkled with oil. The present traffic is extremely heavy. For one thing, all the Hawaiian sugar that goes to Philadelphia—some 250,000 tons per annum—travels by this route. The distance from New York to Hongkong is 1,350 miles less via Tehuantepec than via Panama; from New Orleans to Yokahama, Honolulu, and San Francisco it is 1,970, 1,960, and 1,860 miles less.

Puerto Mexico has a mile of wharf frontage with seven steel wharves whose adjacent warehouses hold 10,000 tons of freight apiece; at Salina Cruz two converging breakwaters of blue limestone, each about half a mile in length, inclose a harbor area of some 20 acres, with an inner harbor whose 90-foot entrance is spanned by two swing bridges. The opening into the outer basin is about 600 feet

wide, but it looks much narrower. It is necessary to keep a dredge incessantly at work in the outer harbor against the insidious encroachment of the sand, encouraged by the shoreward current. Freight steamships lie securely at the wharves in the inner basin beside the enormous warehouses and are speedily unloaded by the huge electric cranes.

The Tehuantepec Railway is at present a single-track route, but it is proposed in time to quadruple the track; and the new Canadian-Mexican Pacific Steamship Line between Vancouver and Salina Cruz will be one of several important connections that may make the railway a formidable competitor of the Panama Canal.



PASSENGERS GOING ABOARD THE STEAMER AT ACAJUTLA, SALVADOR.

It surely is not too much to expect that within a comparatively few years the dream of JAMES G. BLAINE, of an all-rail route from New York to Buenos Aires, will be realized. Soon after the bridge is built across the Suchiate River between Mexico and Guatemala it should be possible to take a through Pullman in Mexico City for Guatemala City, for, from Ayutla, on the Guatemalan side of the boundary, the grading is finished for the track of 25 miles which will connect the Pan American Railway with the Guatemalan systems. In Salvador last April a line was begun to connect with the Guatemala Central; the concessionaire is to receive \$7,000 per kilometer from the Government.

The extant railways of Costa Rica should prove valuable "feeders" for the through route, while the Corinto-Granada line in Nicaragua may likewise prove of material assistance. In Panama the preliminary survey has been run for the line of some 300 miles from the city of Panama to the city of David in the province of Chiriqui, near the frontier of Costa Rica. It is interesting to note that the Republic of Panama is holding out the olive branch to the proud and self-sufficient Indians of the San Blas district, whose jealous tribes have hitherto constituted one of the principal obstacles to overland communication with Colombia. The Guayaquil-Quito Railway in Ecuador and certain lines in Peru and Chile seem to relate themselves more or less directly to the general plan, and of course when Valparaiso, Chile, is reached the railway builders have attained "the haven where they would be," for it is already possible to go from Valparaiso to Buenos Aires over the wonderful new railway through the Uspillata Pass, at an expenditure of only \$68.

At Salina Cruz there is the choice of several lines of steamships to Panama. It is also feasible to take the Pan American Railway to the border of Guatemala and connect at Ayutla with the Ocos Railway, which runs down to the coast, a few miles distant, in an hour. At present, however, there is but one train a week over the last 40 miles of the railway, and the surer connection is at Salina Cruz. The ports of call for ocean-going steamships on the Pacific coast are (in Guatemala) Ocos, Champerico, and San Jose; (in Salvador) Acajutla, La Libertad, and La Union; (in Honduras) Amapala; (in Nicaragua) Corinto and San Juan del Sur. At each of these ports, while the vessel is discharging or taking her cargo, it is possible to go ashore, and at several points it is possible to run a few miles inland on the railway ere the ship weighs anchor. From San Jose, Guatemala may be very comfortably crossed by rail, with a stop in the beautiful capital city; and from Punta Arenas (except for a gap of a few miles which the railway builders are filling in) the transit of a wonderfully fertile and prosperous region may be effected with similar ease to Port Limon. At the Caribbean ports some of the best ships plying in tropical waters will take the traveler speedily to New Orleans, New York, or Panama.

Guatemala produces some 70,000,000 pounds per annum of the finest grade of coffee, of which more than 60,000,000 pounds is exported, the bulk of it to Germany and England. A factory near Quezaltenango, employing 250 hands, consumes 2,500,000 pounds of the raw material in the manufacture of cotton fabrics. There are 480 miles of railway, the interoceanic line between San Jose and Puerto Barrios being 195 miles in length. Of all the exports of the country, Germany takes at present some 60 per cent, the United States about 25 per cent, and England 11 per cent. The United



THE LOCKS IN THE GREAT GATUN DAM AT PANAMA.

Ships going through the canal will ascend to the 85-foot level through a series of three locks. These are double, and have a width of 110 feet and a usable length of 1,000 feet. They are constructed of steel and cement, and will be completed before the time set for the opening of the canal on January 1, 1915.

States leads in imports, with Germany and England in second and third place.

Salvador, the only Central American State with no direct outlet to the Atlantic, is the most densely populated of the American Republics, with 236 inhabitants to the square mile, or more than ten times the average for the United States. Its principal agricultural product is coffee; in 1908 the export of 37,500 tons was worth about \$5,000,000. There are immensely valuable forests of hardwood timber and mineral deposits of unknown value. With the development of facilities of transportation, Honduras is destined to become one of the wealthiest countries of the world. Coffee, cotton, sugar cane, tobacco, and cacao take kindly to the exuberant soil of the lowlands, and in the uplands is abundant pasturage for cattle. There are valuable forests of mahogany and large possibilities in banana plantations and in sarsaparilla. The latter is already sent in large quantities to the United States.

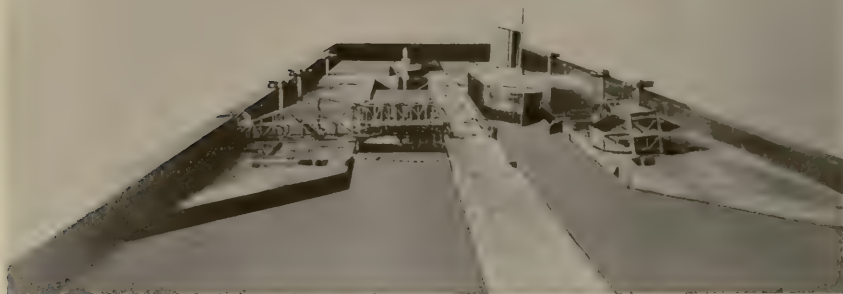
In the forests of Nicaragua are more than 40 different sorts of trees from which the crude material for oils and drugs may be extracted. Some 10,000 tons of coffee and 1,400,000 bunches of bananas were exported in 1906. The sugar yield of 1907, including the by-products, was valued at more than \$1,100,000. Costa Rica, prosperous and well-content, bravely living down and forgetting occasional seismic disturbances, is blessed—like the highland regions of the other countries—with a delicious climate. Coffee is in its element here, for it can find a level exactly to its liking; the best is grown between 4,000 and 5,000 feet, and Mocha and Java probably produce no better. As the *Statesman's Year Book* (a volume not given to rhapsody) says, "Almost anything can be grown in Costa Rica." In 1908 the bananas exported were valued at over \$5,000,000, and the coffee crop was worth \$2,200,000. Rubber is doing well, stock-raising has proved profitable, and in the wide variety of exports are included mother-of-pearl and tortoise shell.

I had visited Panama before, in the Christmas season of 1906, and it was most gratifying, three years and six months later, to witness the changes that the brief period had wrought. Between the military administration and the civilian employees exists the best of feeling. As one man expressed it, "When the army officers came down here we looked forward to the change with no little apprehension. We didn't suppose we should be able to get along with them and their way of doing business. But they've proved themselves the best of good fellows—not a bit domineering or dictatorial; and no man could ask to work for a more fair-minded and reasonable lot of official superiors."

Standing on the wooden suspension bridge lately thrown across the Culebra Cut at Empire, and looking in either direction, it is almost unthinkable that human labor and no natural convulsion achieved

so gigantic a fissure in the earth's crust, by means of those bull-horned steam shovels eviscerating 3 and 5 cubic yards at a time. The slides that have recently taken place (there was one the night before our arrival) seem as trivial amid those vast geodetic—almost cosmic—dimensions as a few bunches of grapes would be in a California vineyard. Of course they demand the serious attention they receive, and where the older houses are too near the crumbling brink they will have to be moved back, but the scare heads of alarm in northern newspapers are without their justification on the firing-line.

At Gatun, where in January, 1907, I had seen a single 70-ton shovel at work, beginning the excavation for the locks, it now looked as though the pyramid builders were on earth again. Gone was the little palm-thatched village of three years ago, and in its place was an



MODEL OF THE CANAL LOCKS AT PANAMA.

Ships will pass through these locks and through the narrower portions of the canal with the aid of electric motors, but through a large portion of the upper level of the canal they will be propelled by their own power.

expanding lake, with the mud-brown water of the Chagres pouring indignantly through the spillway in the middle of the dam site. Terraced concrete monoliths a hundred feet in height and a thousand feet in length arose, and one could peer into the black openings of huge culverts designed to admit the water to the lock chambers. It was easy to believe Colonel SIBERT's quietly confident prophecies as to the time of completion of the great dam; and it was not difficult to forecast the passing through the canal early in 1915 of some such vessel as the 860-foot *Olympic* of the White Star Line, now building. To cross the Isthmus in the present year of grace and see the happy, healthy, industrious American community and the great work that is growing day by day beneath the thousands of busy hands is to receive a new accession of confidence in America and of pride and thankfulness that one is an American.

DOMINICAN CACAO^a ∴ ∴

ALTHOUGH the cultivation of cacao was introduced into the island of Santo Domingo from Venezuela by Spanish settlers more than two hundred years ago, and the crop now produced and exported is of such magnitude as to give the Dominican Republic one of the leading positions in the cacao world, yet the cultivation continues to be largely a matter of chance, no systematic attention being paid to the several details so necessary to insure the best returns. Soil and climate are not met halfway, and the result is only nature's unaided contribution to the world's supply of an important article of diet. The contrast in this respect with other cacao countries must be noticeable. As a rule cacao is grown by the small planter. There are a few large plantations, but even on them the requisite care is not taken. Trees are allowed to grow with but little attention to the proper distance that should be between them, so that there is often the aspect of undergrowth instead of an orderly orchard; selection of the best soil is not made to give the greatest yield, nor are the trees pruned in order to avoid that waste in substance that should be retained for the development of the fruit itself. An appreciation of the foregoing statements will convey an idea of what the future may be for cacao in the Dominican Republic when the essential efforts are put forth in its cultivation. Unquestionably, cacao is destined to be the mainstay of the country, and the income from the sale of this natural product creates wealth more widely distributed among the people than is true of the other principal product, sugar.

A great advantage enjoyed by Dominican cacao is that Santo Domingo occupies a geographical position nearest to New York of any of the leading producing countries, and New York is the metropolis of the country of greatest cacao consumption. This geographical feature should exert an influence on freight rates, and especially so when with the completion of the Panama Canal all of the West Indies will reap commercial benefits proportionally greater than other sections.

Cacao cultivation is confined principally to the Cibao section, in the northern part of the island. Here there is an abundant rainfall, so necessary for the growth and maturing of the cacao bean. The best quality cacao comes from the Province of Seibo, in the vicinity of Higüey, and from around Sabana de la Mar on the south coast of

^a By W. E. PULLIAM, general receiver of Dominican customs, Santo Domingo.

Samana Bay. The plantations in the two sections particularly named are controlled by foreigners, Swiss and French, who are doing and have already accomplished something definite toward improving the quality of Dominican cacao, with the very natural commercial consequence that the cacao marketed by them commands a much better price than obtained in the other district, from whence comes the bulk of the product. These efforts of the individuals mentioned, with the tangible reward accrued, will do much toward encouraging the native growers to adopt similar methods if they would increase their income.

On either side of the Yuna River, which flows into Samana Bay close to the port of Sanchez, there is available land open to settlement by purchase. The soil is said to be splendidly adapted to cacao and the annual rainfall meets the requirement in that respect. There are, besides, other portions equally well adapted and open to settlement. The land is accessible and its purchase is comparatively simple. The price is within the reach of anyone interested in getting a foothold in the West Indies. That part of the island between San Francisco de Macoris and Moca so far has produced the most cacao. Railroads operate from the interior to the ports of Sanchez and Puerto Plata, and from thence it is an easy matter to get the cacao crop to market. The transportation item alone is a splendid factor operating for the success of the cacao cultivation, for after the crop is gathered and subjected to the crude drying process it is relatively simple to transport it on horse or mule back, as small quantities represent considerable value. In this respect cacao is entirely different from the other and heavier native crops for export, which, owing to the entire lack of made roads in the country, can not be transported except at an enormous expense, and often in the rainy season it is out of the question to attempt any kind of transportation.

According to those best posted by years of experience the best yield in proper soil can be obtained from planting about 500 trees to a hectare, which equals 100 meters square. Trees should be approximately about $4\frac{1}{2}$ meters apart, and kept pruned to a height of 4 meters. With due attention a crop will mature and can be gathered within five or six years from the first planting, and in ten years the increase will be such as to afford a positive and dependable income, which will continue for many years. A healthy cacao tree in its prime will bear 100 mazorcas (pods) annually, and the almond-like grains from these will weigh, dried ready for shipment, about 3 kilos. Cacao is gathered throughout the whole year, although there are two principal crops, the larger one from March to June during the spring season, owing to the effect of the heavy rains in the preceding fall. The smaller crop comes in October, November, and December.

There are cacao trees still bearing in Santo Domingo claimed to be all of 100 years old, and an average tree will continue to yield until it is 60 years old.

Together with that care for the trees, soil selection, pruning, use of fertilizers, etc., will come attention to the most disturbing agency—that is, the presence in the trees of what is known as the insect *aphis*, which has done great damage during recent years. As in South America, this insect sucks the sap of the leaves and in this manner exhausts the producing quality of the cacao tree. These ravages have been experienced before, and present the only obstacle to a great future for the cacao industry. The measures undertaken by the Government—although somewhat delayed—to aid in the extermination of the pest may prove the means of facilitating speedy war on the unwelcome visitor when it next appears in the cacao section of the Republic. Planters in other cacao-producing countries have taken preventive measures to counteract this baneful effect, but in the Dominican Republic the zeal displayed in this direction has been spasmodic. Growers have allowed the inroads to continue, merely trusting to luck that in time the insect might disappear. Such, in fact, is now actually coming to pass. Although recent crops have been affected in a marked degree, indications for the present year point to a very satisfactory yield in the coming months of October and November, as late reports state that the insect mentioned is gradually disappearing. This insect readily succumbs to a kerosene solution spray, so that the means to combat it are neither expensive nor difficult to obtain.

The average Dominican cacao bears favorable comparison with that produced on the island of São Thome, Africa; and the best quality—that which is given special care at time of fermentation—is to be classed with the best Bahia product.

Dominican labor is inexpensive, and perhaps can be employed to better advantage on a cacao plantation than where heavier work is the rule. There is abundant suitable land. Hence the return reasonably assured from cultivation of cacao in Santo Domingo offers an inducement to anyone inclined to invest in that line, who is desirous of making his home in the West Indies and will take up the task prepared to adapt himself to local conditions, learn the ways, habits, and language of the people, and determined not to give up the struggle until success is attained. After a lapse of four or five years a satisfactory income should be realized, and it should increase with each succeeding year, under normal conditions. By far the most essential requirement is personal direction on the ground by some one directly interested in the success of the undertaking. Long-range supervision and dependence upon a salaried overseer will not answer. Any cooperative scheme whereby four or five men would band together

to engage in the cacao industry in Santo Domingo would mean independence for each within a space of less than ten years, provided always that the proper efforts are made in the beginning and the endeavor not allowed to suffer through inattention. The actual



PICKING CACAO PODS.

financial compensation on the total investment within a few years would be at least $33\frac{1}{3}$ per cent per annum, with the additional phase to be reckoned with, not true of other tropical enterprises, that the initial period of the first five years represents the time when the



BREAKING CACAO PODS.

greatest amount of work must be done to bring the cacao to the maturing stage, after which, subject to exceptional years and unusual conditions that may come, the income from the cacao would be steady and dependable, as the labor would be employed mainly in gathering the crop and looking after the trees with a view to the next season.

To start a cacao plantation the initial and principal investment would be confined to the land itself. Then would be the item for fencing. No expensive machinery is required nor is any elaborate plant necessary. Of course there will come off years, as in all pursuits, but if they do the loss will not be heavy, as would be the case if it were necessary to maintain a costly establishment during a disastrous year.

The world's consumption of cacao is increasing at a greater rate than the recorded gain in production. It is unlikely that the latter will overtake the former. The demand for chocolate, cocoa, and the many confections in which cacao is used expands year by year. Sections of the world's area where cacao can successfully be grown are necessarily limited, owing to climatic requirements. The comparative facility with which this crop can be produced, harvested, and transported gives it advantages not enjoyed by other tropical products.

Until January 1, 1910, when the new Dominican tariff went into effect, cacao for export was subject to a customs tax of \$1 a quintal, which constituted a considerable burden—far more than placed on any other domestic product, so much so that the greater part of the total export duties came from cacao. The Government, realizing this condition and being desirous of giving some aid to cacao growers, in the new export schedule of duties created a rate of \$1 a hundred kilos, amounting to a decrease of 53 per cent compared with the former law. While still a considerable tax, especially in view of the fact that many other cacao countries levy no tax at all on the product, yet the reduction will prove an element favorable to larger cacao acreage, as it should give the individual grower that much better price for his offering to the buyer obtaining cargoes for export.

The principal markets for Dominican cacao are the United States, Germany, and France, in the order named. During the current year the prevailing price obtained in the Republic has been around \$8 per quintal of 50 kilos.

In connection with the foregoing it is believed that the following brief statistical table may prove of interest, as it indicates the quantities with corresponding values of cacao exported from the Dominican Republic to the principal countries during the last two calendar years:

	1908.		1909.	
	Pounds.	Value.	Pounds.	Value.
United States.....	6,716,746	\$637,946	14,080,993	\$1,251,104
United Kingdom.....			19,638	1,837
Germany.....	28,497,193	2,895,630	9,641,372	741,606
France.....	6,689,531	735,239	8,917,949	763,527
Porto Rico.....	2,762	221	5,955	506
Other countries.....	115	11	6,764	611
Total.....	41,906,347	4,269,047	32,672,671	2,759,191

The segregation by countries tells of the foreign consumption. Heretofore Germany has been the heaviest purchaser of Dominican cacao, but in 1909 the United States assumed the leading position, and it is quite likely that American purchases will continue to increase to a greater extent than those of other countries.

The year 1909 was far from normal for this export. As shown above, the decrease amounted to 9,233,676 pounds compared with the twelvemonth period immediately preceding, and the shrinkage in value was \$1,509,856. Effects of an unusual hurricane combined with the inroads made by the insect heretofore discussed were contributing causes to the very unfavorable crop. The year preceding, 1908, can be accepted as nearer an average one. It affords a dependable guide for what may be expected in the way of cacao, not taking into account the augmented profits that will come with a greater acreage that must follow when immigration is attracted to the Dominican Republic with its wonderful tropic climate, and the newcomers on the ground realize what a promising future awaits the really industrious and serious-minded who are prepared to take a chance at growing cacao.



LA GUAIRA " " "

THE PICTURESQUE^a

"And where is La Guaira?"

"Half round the world on the coast of the Spanish Main. The loveliest place on earth, and the loveliest governor's house, in a forest of palms, at the foot of a mountain 8,000 feet high: I shall only want a wife there to be in paradise."—Westward Ho.

NO doubt the most maligned port of all South America is La Guaira in Venezuela. It is not the worst place in the world, yet a gentleman sent out by a department of the United States Government to collect information recently arrived just in time, by running, to make connections with the train for Caracas, and departing went out with the same speed. In response to the question as to his object in neglecting commercial conditions of this port, he said he was told to "avoid La Guaira, because no man could endure its heat; it was pestilential." Many people live in La Guaira all their lives, and I know a number who are not dead yet. The poetry a former American consul once "dropped into" entitled "Adios to thee, La Guaira," is yet a famous text of those who do not really know the place, and may be it was worse when Consul BIRD "flopped his wings" about its "calles" and "pulperias."

It is common among commercial travelers, especially from the United States, to rant and rave at La Guaira's climate and conditions. But the climate of La Guaira is fully as agreeable as one finds at any port of the same latitude. They speak from a day's experience; I write from over a year's continuous residence, and it is misrepresented. It is an enervating climate for a northern man if he stays too long, but it is delicious at times, and rarely severe.

With a market offering a surprising variety of fruits and vegetables, many of them not usually found in tropical ports; with delicious fresh fish daily, and other commodities not formerly to be had, life is not altogether unpleasant, as many seem to think.

Situated at the base and on the jagged edges of cliffs of high, rugged mountains which rise almost directly from the breaking surf of the Caribbean Sea to an elevation of from 4,000 to 9,000 feet, its location is extremely picturesque. The town is divided into three or four villages, of which La Guaira proper is the center; stretching along the narrow shelf at the base of the hills for a distance of 4 or 5 miles, encompassing Maiquetia on the west and the Venezuelan, Baden Baden, yclept Macuto, on the east. If it were "Out West"

^a By Isaac A. Manning, American consul, La Guaira, Venezuela.



Photograph by Franco, La Guaira.

THE TOWN OF MAIFUETIA, SHOWING LA GUAIRA IN THE DISTANCE AT THE FOOT OF THE MOUNTAINS.

it would surely be nicknamed "Stringtown," but it gives homes and employment to ten or twelve thousand souls.

The towns of La Guaira and Maiquetia differ but little from other Spanish towns, with cobblestone-paved streets, opening out at unexpected corners into cool-looking parks as surprising and welcome as oases in a desert. The streets are flanked by brick or adobe stuccoed houses of one or two stories; the front rooms frequently serving as shops, stores, or "pulperias" for the sale of fruits, vegetables, matches, beer, wines, liquors, and highly colored cottons and alpargatas, the rear rooms and second stories being the living rooms of the families.

La Guaira is the principal port of northern Venezuela, and the port of ingress and egress for the capital, Caracas, the "Paris of



Photograph by Franco, La Guaira.

A BUSY DAY IN THE HARBOR OF LA GUAIRA.

South America," with which it is connected with a wonderfully scenic and picturesque railway. It enjoys a large import and export trade, with an average of 20 ships engaged in international commerce making it a port of call monthly, while the coastwise sailing craft, many with this as their home port, are innumerable. It is a dull day indeed in La Guaira harbor that finds less than 15 or 20 small sloops and schooners loading or unloading cargo from the coast towns or the adjacent islands.

The approach from the sea is picturesque in the extreme, and the sight as one steams into the harbor (or out of it) is one not soon to be forgotten. It gives a curious intermingling idea of the villages along the Italian shores of the Mediterranean and of the Hopi cliff dwellers.

The streets wind and weave up the gullies from the seashore, and narrow trails and stairways zigzag along the steep hillsides to where little whitewashed huts break the monotony of the red iron stain of the barren declivities.

The old story of narrow streets of medieval Spanish towns repeats itself here. Laid out in the centuries of turmoil and strife, all was with a view to defense; but in La Guaira the old story is slightly accentuated. There is one boulevard reaching from Maiquetia through La Guaira to Macuto, and all the rest are just "calles," or passageways. The wider of these is about 12 feet across and there are several too narrow for three people to walk abreast without bumping against doorsteps and the omnipresent projecting iron-barred



BRITISH SHIPS ATTACKING LA GUAIRA, MARCH 2, 1743. (From an old engraving.)

The British, commanded by Carlos Knowles, were defeated.

windows. The cobblestone pavements are the work of a period "when the memory of man runneth not to the contrary." When the tropic rains come down they serve excellently for drains, and for thoroughfares for burros and foot passengers at other times.

La Guaira was established contemporaneously with the location of the capital of Venezuela at Caracas, up to which period the principal entry port had been farther to the westward, the principal center of the country being Valencia. Caracas having been established, however, in 1567, it became necessary to find a nearer sea connection, and assuming that the jutting headland of Cape Blanco, which here forms a considerable bight, would offer protection to ships, this was made the port.

It is distant over the mountains but 8 miles from Caracas. The Spaniards constructed a bridle path over the hills to that city, with the never-failing cobblestones forming the bed. Over it the armament, ammunition, and merchandise of this important capital were transported for many years. In 1796 the King of Spain authorized the construction of a cart road from La Guaira to Caracas and also the improvement of La Guaira port, but the work was abandoned, the authorities at Caracas fearing it would simply facilitate access of their enemies to the capital. This was constructed later, however.

OSORIO VILLEGAS is said to have been responsible for the foundation of La Guaira, or rather of a port along this immediate shore. Here was offered every facility for defense, but, withal, several years after its settlement AMIAS PRESTON, who accompanied Sir FRANCIS DRAKE, landed at Macuto and led 400 men over a hidden trail, guided by a Spanish prisoner named VILLAPARDO, and while the Spanish troops of Caracas awaited the English on the established King's highway, PRESTON appeared within that city, where he carried to completeness the usual customs of the gay buccaneers. He then made his way back to his ships, escaping with the booty and with the loss of but few men.

French pirates under one M. GRAMMONT found La Guaira easy prey in 1680; but the Dutch (in 1703) and the English naval forces (in 1739 and 1743) were driven off, the fortifications at La Guaira by that time having assumed considerable proportions. They were strong because of their commanding positions on the hills overlooking town and harbor.

There are in absolute ruin and abandon on the hills above La Guaira what were no doubt well-armed batteries to the number of six or seven, and four other rather commanding positions are still maintained as military posts, where are now two modern cannon. Seeing these old ruins one can well appreciate how the Guaireños were able to beat off the ships of war of that time.

La Guaira has been frequently the seat of war during its existence, and foreign warships threatening its destruction are not unknown to the present generation. There recently occurred a most amusing reminder of one of the later of these events, and it is too good a story to keep.

A soldier at the fort called "El Vijia," just above the town, was sitting astride a 4-inch cannon of the old muzzle-loader type, enjoying the ubiquitous cigarette of cotton paper and Havana tobacco. After consuming the greater part of the little roll, he stuck the still burning butt into the vent or "touch hole" of the gun, and the gun, like Deacon Pogran's powder, "went off all at once." It had been forgotten in the stress of warfare of the days of Castro and the European blockaders, and the charge had been waiting just such attention as the smoker gave it. The town was startled by the report and the shriek

of the shot as it passed harmlessly to the point in the sea where it was expected to have destroyed a warship, but when the soldier "came to," he took a vow never to insult a muzzle-loader cannon with a cigarette again, however antiquated and harmless it might appear. He said, "Un cañon cuando fuma, fuma tanto." (When a cannon smokes, it smokes too much.)

La Guaira was the scene of the incarceration of many of the conspirators of the various movements between 1796 and the final throwing off of Spanish dominion, in 1810, and the principal dungeons where these prisoners were kept were under the streets near the sea wall. They have been destroyed in later years, although the outlines of some of the entrances may be seen in the walls which keep La Guaira Creek within its bed.

The first conspiracies against Spanish rule were backed by the British governor of the island of Trinidad, but when all plans for a grand *coup de guerre et de etat* were about perfected, the signing of peace between Spain and England caused the withdrawal of the latter's influence and help, and one of the conspirators was shot at Caracas, his body divided, and parts sent to various provinces for exhibition to the populace. To La Guaira the humane governor of Caracas sent the head in an iron cage, had it mounted on a pole, and set up in the plaza.

That this did not have the immediate deterrent effect expected is evidenced by the fact that other efforts were made to install a formidable revolution, and the great FRANCISCO MIRANDA, who died a martyr to the cause of Venezuelan liberty, made an effort to secure assistance in the United States. He directed a letter to ALEXANDER HAMILTON asking for a contingent of 10,000 men, expecting England to supply a naval force, but President ADAMS postponed the reply. Again, when the Louisiana question arose, MIRANDA, thinking the time propitious, arrived in the United States seeking help, only to find the Louisiana purchase consummated.

He found he could not count upon the assistance of the United States Government in carrying out his plans, but he recruited 200 men, sons of good families of New York, and after many difficulties



UP THE CLIFFS AT LA GUAIRA.

Stairways zigzag along the steep hillsides to where little whitewashed huts break the monotony of the red iron stain of the barren declivities.



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A STREET IN LA GUAIRA, SHOWING BRIDGES OVER LA GUAIRA RIVER.

The entrances to the old dungeons were just under the bridge shown in the foreground.

sailed in small ships for Venezuela. He was defeated on the coast of Cumaná, and a price of 30,000 pesos placed on his head. The inquisition sitting at Cartagena declared him the "enemy of God and the King, not fitted to receive either bread, fire, or shelter."

He returned to Venezuela again in 1810, fought and lost a battle at Maracay, and after being captured on June 17, imprisoned in La Guaira and later in Puerto Cabello, he was sent to Spain via Porto Rico, dying in a Spanish prison July 14, 1816. There is little about La Guaira of local interest in connection with either MIRANDA or SIMON BOLIVAR, both of whose names are so highly revered in all this country.



Photograph by Franco, La Guaira.

PALACE OF THE OLD SPANISH GOVERNOR, DON GUZMAN DE SOTO, LA GUAIRA.

Among the old historic points interesting to the modern student and traveler, nothing seems to me quite so worthy of attention as the house which now occupies the site in the gardens where lived the Spanish governor, so aptly described in Kingsley's famous book, "Westward Ho." The old house was partially destroyed by the terrible earthquake which caused almost the total destruction of La Guaira, Caracas, and other cities of Venezuela on Holy Thursday, March 26, 1812, but the present structure, rebuilt on the old foundations, is evidently similar in construction and form to the other.

The gardens, the flag pavements, and the graveled walk leading from the seashore, are more or less as they must have been when the

Amyas Leigh of the story came with his brother Frank, who sought his lady here, only to find the "Rose of Torridge" in possession of his enemy, Don Guzman Maria Magdaleno Sotomayor de Soto. The house stands to the eastward of La Guaira proper, on an eminence overlooking much of the town and commanding an excellent view of the harbor. The Macuto steam tramway and the electric lights are about the only things one finds near it sufficiently bizarre to destroy the conceit of harking back to that earlier time, for in little else is the immediate scene changed.

There are few public institutions in La Guaira of particular interest, one of the principal being the Masonic temple, built on the sea wall in 1855. Among the others, the market, custom-house, and railway station are the most imposing. In Macuto are a number of very charming villas, and the sea baths are popular, many people coming there from Caracas at certain seasons of the year to breathe the salt air of the Caribbean and bathe in its waters.

The Union Club of La Guaira is the principal social center, and has had an uninterrupted career dating from April 19, 1842, being one of the oldest institutions of its kind in South America.

The harbor works call for attention, the main breakwater forming an inclosed bay and offering pier room for three ships, the outer having sufficient safe water for vessels of 30-feet draft. The harbor is well buoyed and offers safe anchorage.

There are three trails over the mountain leading from La Guaira to Caracas by which one may reach the capital on horseback in four or five hours, presenting vistas of exquisite beauty. The most picturesque probably is via Galipan, a small village at an elevation of about 3,000 feet, from which Caracas on the one side and the Caribbean Sea on the other are visible.

The Caracas Railway offers also a most delightful trip, rising to an elevation of 3,200 feet in 21 miles of distance. It is a succession of sharp curves and steep grades, and as it climbs the mountain side one encounters scenery rare in its variety. The sea, the harbor, the towns of La Guaira and Maiquetia, and the flat plains of Cao Blanco are far below. Coffee plantations are passed, and groves of banana trees wave in the breeze. The line creeps around the precipitous cliffs of El Boqueron, with the homes of goatherds and Canary Island truck farmers in the gullies far below. The majestic mountains tower high above, and canyons stretch out beneath with thread-like rivulets flowing along their sandy beds. There is much that reminds one of the scenic changes of the Rio Grande in Utah and Colorado, but the low English engines, the short train of small coaches, little resemble the enormous trains of that road.

After a two-hour climb the summit is passed, and the train debouches into the rich valley of the Guiria, wherein lies Caracas, but that is another story.

THE LAKES OF GUATEMALA^a

BORED by the loveliness of Norway's fiords and grown weary of the soft beauty of the Italian and the rugged grandeur of the Swiss lakes, the blasé globe trotter turns in search of some new enchanted spot where the realization that it is seen for the first time lends again some zest to life.

The world is fast grasping the fact that in the comparatively small space between Mexico and the Isthmus of Panama lies, as it



ALL ABOARD!

were, a Land of Promise—a promise of wealth incalculable to the realm of commerce, through the cultivation and development of marvelously rich and fertile countries which are being opened up with wonderful rapidity by the network of railroads that are spreading throughout the five beautiful republics of Central America. More than a land of promise to the archæologist, who has here a vast field for research wherein to unravel the mystery which surrounds the history of the ancient American civilization and throw

^aBy Edine Francis Tisdell.

some light upon the origin of the people whose wonderful works are evidenced in the ruins of prehistoric cities found hidden in dense tropical forests. A land of beautiful realities to even the ordinary tourist, who finds easily accessible a wealth of scenic beauty unsurpassed and a perfection of climate rarely equaled.

This is particularly true of Guatemala, the most northern of the Central American Republics and our nearest neighbor after Mexico. It is reached by a three days' delightful sail on the Gulf of Mexico and along the coast of British Honduras. The fine new ships of the United Fruit Company give every luxury and comfort of ocean travel, and Guatemala, in the very near future, will become the



"Here the water seems to be motionless, its glassy surface reflecting in absolute perfection of detail each leaf and flower, and not a sound breaks the silence."

Mecca of those desiring to escape the cold and gloom of a northern winter. Nowhere in the world can be found more magnificent and varied scenery than that which greets the traveler, especially in the lake regions of this lovely Republic. Of the four large lakes—Peten, lying far to the north; Yzabal, near the Atlantic coast; Amatitlan, on the Guatemala Central Railroad not far from Guatemala City; and Atitlan, tucked away in the mountains near the Pacific coast—there is small choice. Differing so widely, each in its way is perfect, characteristic of its location and climate.

Upon our arrival in Puerto Barrios we concluded to visit Lake Yzabal before going up to the city of Guatemala. After one night of rest, therefore, we boarded the little mail boat which carried us

out from the landlocked bay, a short distance across the Gulf of Amatique and along the shoreline, where graceful palms stirred lazily in the perfumed breeze, to Livingston. This town is picturesquely situated on a bluff at the mouth of the Rio Dulce, or Sweet River. A new hotel, with comfortable rooms and excellent cuisine, has lately been opened here, and a day or two may be well spent enjoying the many unusual scenes in this quaint little town.

From the porch of the Hotel Rio Dulce, we look down through a maze of palm trees, across the thatched roofs of the town, to the sparkling waters of the bay, where the Caribs dart back and forth in



PITPANS OR NATIVE CANOES OF GUATEMALA.

graceful canoes. In a kneeling posture and with only the use of a paddle, they skim across the water with incredible speed. The air is heavy with the scent of jasmine and gardenias; the gleam of oranges and the tiny golden balls of the cumquat meet the eye at every turn, and towering above all the great spreading branches of the wonderful breadfruit tree.

Lake Yzabal lies about 50 miles inland and a regular line of steamers ply between Livingston and Panzos, in the interior on the Polochic River. We did not, however, avail ourselves of this usual means of transportation, having had a launch placed at our disposal.



ONE OF THE BEAUTIFUL TEMPLES OF MINERVA IN GUATEMALA, LOCATED ON THE SHORE OF LAKE AMATITLAN.

For the first 10 miles we followed the winding course of the Rio Dulce, the beauty of which is only comparable to that of the far-famed Saguenay. By some terrible convulsion of nature, the mountains have been rent asunder and through picturesque canyons and gorges this lovely river wends its majestic course to the sea. The shores gradually draw nearer together and we soon find ourselves shut in between towering walls of green, rising to the height of 400 to 500 feet, with dense tropical vegetation and graceful overhanging vines lazily swaying in the breeze. Here the water seems to be motionless, its glassy surface reflecting in absolute perfection of detail each leaf and flower, and not a sound breaks the silence. The only signs of life are the hundreds of beautiful white Garza, the birds which furnish Dame Fashion with the much desired and ever-expensive aigrette. We passed occasionally a native drifting downstream in his dugout, or pitpan, as these canoes are called—his cargo a bunch of bananas or a string of fish.

The shores again receded and we entered the Gulf of Golfete, a pretty body of water some 10 miles in length and dotted with numerous islands. Another narrow channel and we finally entered the lake proper. A beautiful picture is before us—the lovely expanse of water with its wooded shores rising gradually to the rugged Sierras de las Minas, to the south, and the Santacruz Mountains, to the north. Here stand the picturesque ruins of the old Spanish fort of San Felipe, built in 1525 by HERNANDO CORTEZ during his march from Mexico to Honduras and erected to protect the approach to the town of Yzabal, which at that time was the principal port of entry. It is now of small importance, a sandbar having formed across the mouth of the Rio Dulce, which prevents vessels drawing over 16 feet of water from reaching this inland sea. Large brass cannon, bearing the date 1496, have been found scattered among the ruins of this old fortification.

On the north shore is the town of Santacruz, where an enterprising American has established a sawmill in a dense pine forest, cutting the timber to sell to the natives and sometimes shipping it to the seaboard to be sold along the coast. The surrounding country is very rich and productive. Immense banana plantations are seen on every side, the estate of "Jocolo," where we stopped for luncheon, being one of the richest.

Neither pen nor brush can do justice to the wild beauty of the Polochic River, and those in search of new sensations can enjoy the unique experience of traveling in perfect safety through a tropical wilderness, where gayly colored parrots and inquisitive monkeys chatter at the intruder from overhanging branches, and crocodiles, with wide open mouths, lie basking in the sun.

This is the main route to the coast for the natives of the Coban and Peten districts, who bring their produce in canoes down the river to Lake Yzabal and thus to the markets of Livingston.

On the Polochic, near Panzos, is situated the great rubber plantation of "Tinajas," which covers 155,000 acres of land. It is owned by the Guatemala Central Railroad and is one of the most important and richest estates of its kind in Central America.

In the northern part of the country lies the great lake of Peten, or San Andres, of which comparatively little is known, except to antiquarians. Situated in a wild, almost uninhabited part of the coun-



IN THE LAKE COUNTRY.

try, perhaps the richest in all Guatemala, it is difficult of access. This immense body of fresh water, 27 miles long and having a shore line of 70 miles, is dotted with numerous islands. On the largest of these is the town of Flores, with about 15,000 inhabitants. Near Flores are the ruins of a buried city, with stone images and monoliths covered with hieroglyphics, showing the unread history of a people which dwelt in the midst of this primeval forest ages ago.

To the south of Peten the Guatemala Central owns another great estate—dense mahogany forests covering 111,000 acres of land. When cut this mahogany must be floated down the river Sarstoon to the sea in the Gulf of Amatique, where vessels load for Europe.

At Lake Amatitlan we find ourselves on a much visited lake. The borders of this lovely body of water, lying only 18 miles to the south of Guatemala City, are the playgrounds of the capital. For 15 miles along its curved shore line run the tracks of the Guatemala Central Railroad, which, particularly on Sundays and holidays, carries many excursionists to the town of Amatitlan, the favorite resort of picnickers.

Situated at an altitude of nearly 2,000 feet above the level of the sea, 12 miles long and 3 miles wide, it is very deep and gives rise to a river, the Guastoya, which has its outlet in the Pacific Ocean, 12 miles south of the port of San Jose, where it is 12 miles wide.



TYPES SEEN IN THE INTERIOR OF GUATEMALA.

At the station of Laguna we find a nice little hotel, with wide porches which overlook the rippling blue waters and from where we can look across to the rich green slope of the giant volcano, Agua, which rises in one magnificent, unbroken sweep to the height of 13,000 feet. Behind it one catches a glimpse of the jagged crest of Fuego.

Amatitlan presents much to interest the scientist. The waters are strongly impregnated with sulphur and iron, and many people come here for the baths. In cases of rheumatism some remarkable cures have been made.

A curious phenomenon, which is a yearly occurrence, generally during the month of March, is an eruption which takes place at the bottom of the lake, and great quantities of sulphur rise to the surface of the water. This, for a time, is the death knell of the fish. At



AN INSPIRING SCENE IN GUATEMALA.

The volcanoes in the distance are called "Fuego" (Fire) and "Agua" (Water), and are 12,197 and 13,487 feet, respectively, above the level of the sea. Nestling peacefully at the base of these passive giants of the cordillera is the tranquil volcanic lake of Atitlan. The plantation in the foreground, with its fertile fields and wealth of vegetation, is typical of the temperate zone of the Republic.

all other times, however, the sportsman can indulge in his favorite pastime to his heart's content. The markets of Guatemala City are daily supplied from this lake, the Mojara, a small pan fish of fine flavor, being very plentiful. Fried to a crisp brown and piping hot, these are sold by Indian women at all the stations along the lake.

Several attempts have been made to cultivate the spawn of imported white fish, but when grown to a good size the native fishermen practically exhausted the stock.

Large pieces of pumice stone are found floating on the surface of the water and along the shore. In the boiling springs which abound, is done the laundry work of the city, the women taking advantage



VIEW OF LAKE ATITLAN AND THE TWO ATITLAN VOLCANOES.

Taken from the height of Godines.

of this water heated by nature and ever ready for use. Groups of dark-skinned Indian women, in their gayly colored native costumes, kneeling by the deep blue waters amidst piles of snowy linen, present a most attractive and fascinating picture. There is also a novelty about a picnic, when eggs can be cooked without trouble by merely dropping them into one of Mother Nature's ever-boiling pots.

It has been my good fortune to see many lakes in different parts of the world, but never have I seen one more exquisitely beautiful than the curious crater lake of Atitlan, incomparable for grandeur of scenery and perfection of climate. The traveler is more than repaid for the several hours spent in the saddle, for up to this time it can only be reached on horseback. I think I can safely predict,

however, that before very long there will be every facility for reaching one of the loveliest spots in the world.

In the southwestern part of Guatemala, some 35 miles from the railroad and at an altitude of 5,000 feet, nature seems, on the borders of this silent body of water, to have reached the culmination of her handiwork.

Discovered first by the Spaniards in 1524, ALVARADO was here victorious in a desperate battle with the natives, and, exploring the surrounding country, took possession in the name of Spain.

In the very heart of the mountains we find this lake, 30 miles in length and 10 miles in breadth. Although many streams empty their waters into it, there is no visible outlet and its depth is unknown, no soundings having been made with a line of more than 300 fathoms.



VIEW OF LAKE ATITLAN FROM THE HOTEL PORCH.

Showing volcanoes of San Pedro and the two Atitlans.

No fish live in its icy waters, and here and there upon its surface mineral springs bubble up from its unfathomable depths. Several attempts have been made to grow fish here, but they all disappear. At San Lucas can still be seen the remains of hatcheries. There is reported to be in this lake a vortex, evidently leading to a subterranean passage, which seems to be the plausible explanation of their strange disappearance. For several hours each day a strong wind blows down from the mountains, whipping the smooth surface into angry waves and changing the usually placid expanse into a choppy, whitecapped sea.

I made this trip under rather unusual circumstances, for casting aside the more conventional time for travel, we rode by night, under the silvery light of the moon. Having once done this, the very idea of daylight associated with such scenes becomes banal in the

extreme, and I advise anyone making this journey to arrange for their arrival at the lake in the "wee sma' hours." They will never regret it.

It is impossible to describe the charm and witchery of this country, bathed in moonlight, the scenery at each step becoming more impressive. We forded rushing, tumbling mountain streams, looking like cascades of silver, and we rode through silent Indian villages, where the inhabitants were sleeping in front of their strange little bamboo huts. The only sound to break the silence was the plaintive call of the whippoorwill.

We reached the village of San Lucas, on the borders of the lake, and there we found in readiness the little steamer which was to take us across to the hotel on the opposite shore, a trip of an hour and a half.

Words are inadequate to portray the scene which was before us. The great expanse of water lay like molten silver in the moonlight, the mountains, solemn and awe-inspiring, standing in serried ranks like giant sentinels to guard this treasure. A soft, pearly mist hung over all, but not so dense as to hide the perfect outline of the three great volcanoes—the two Atitlans and San Pedro. These stupendous giants rise to the height of nearly 12,000 feet and fall in one unbroken sweep to the water's edge.

As we approached the opposite shore the hotel stood out white and clear against the dark background of the hills, overhanging the water like a tiny flower-garlanded bird cage. At the landing place a group of Indians awaited our arrival, each holding a torch, the flames casting weird flickering shadows and a lurid glow over the scene.

Owned by a German, this hotel is considered, with few exceptions, the best in Guatemala, and although simple, is comfortable and clean, and the food is of excellent quality and well cooked. Hammocks and easy chairs give a homelike look to the long vine-covered verandas of the two main buildings. In this peaceful spot the days slip by unheeded. The world and its busy life beyond the towering mountains is forgotten and we drift out upon a sea of romance and poetry.

There are many delightful excursions to be made in the vicinity, 11 quaint Indian villages, named after the Apostles, dotting the shores; considerable commerce is carried on between these towns by means of canoes, and the steam launch makes the round of the lake regularly twice a week. The town of Atitlan is very picturesquely situated on a bay running inland between the two volcanoes—San Pedro and Atitlan. Not far away, snuggled close to the water's edge at the foot of Atitlan, is the "Cerro del Oro"—Mountain of Gold—where a great treasure is believed by the natives to lie buried, and the ruins of an old fort can be vaguely discerned.



A PICTURESQUE SCENE IN GUATEMALA.

An illustration of the country's exuberant vegetation so much admired by Humboldt.

Two thousand feet above the lake is the large town of Solola, capital of the province of the same name and a center of commerce. Here is obtained a fine view of the surrounding country, but by far the most beautiful is that from the height of Godines. We find ourselves at an altitude of 8,000 feet and the whole world appears to lie before us. It is true we have not the snow peaks of Switzerland, but instead is the unusual spectacle of range after range of mountains on all sides, dominated by the majestic heads of great volcanoes, 7 in all, magnificent in their imposing grandeur and jealously guarding the beautiful lake, which, like a great sapphire, lies 3,000 feet below.

The filmy veil of mist which is characteristic of this region during the greater part of the year occasionally melts away, and as we stood



SCENE ON ONE OF THE BEAUTIFUL GUATEMALAN LAKES.

on this spot, speechless before the wonder of this panorama, it seemed for our benefit alone to have crept silently away in the night, and earth and sky and water were perfectly revealed, outvying each other in deepest tones of blue.

But even as we gazed soft clouds formed in the valleys below and crept stealthily up, writhing and twisting like great white snakes, until once more they had encircled the mountains like giant serpents whose power even the great hills could not withstand.

Nature seemed to say that we had looked already too long upon her secret treasures, and softly but swiftly she again drew around them the gauzy mantle in which, except at rare intervals, she keeps them wrapped.

UNVEILING OF STATUE OF WASHINGTON AT VERSAILLES ∴ ∴ ∴

THE bronze replica of Houdon's celebrated statue of WASHINGTON was presented by the State of Virginia to the French Republic on August 18, 1910. The impressive ceremony took place in the Napoleon Hall of the palace of Versailles, in the presence of a distinguished assembly of French and Americans. The French Minister of War, General BRUN, was



UNITED STATES CITIZENS AT THE CEREMONY AT VERSAILLES.

The American Ambassador, Mr. Robert Bacon, and Mrs. Bacon; Colonel James Mann, chairman, and the other members of the Virginia delegation, including Senators Halsey and King.

present, accompanied by his staff; the French Ambassador to the United States, M. JUSSEMAND, Madame JUSSEMAND, the Marquis DE LAFAYETTE, and the Count DE ROCHAMBEAU were among the distinguished French guests. The American Ambassador Mr. ROBERT BACON, and Mrs. BACON, who were the hosts of the Virginia delegation, were also present. The Paris band rendered patriotic airs of both republics at intervals throughout the ceremony.

General BRUN acted as the presiding officer. The speech of presentation was delivered by Col. JAMES MANN, the chairman of the Virginian commission. In the course of his eloquent address Colonel MANN referred in glowing terms to the affectionate regard in which



THE STATUE OF WASHINGTON AT VERSAILLES.

This statue, a beautiful bronze copy of the famous Houdon statue, is the gift of the State of Virginia to the French Republic. It was unveiled at Versailles on August 18, 1910, the ceremony being especially brilliant and impressive.

Americans hold the memory of LAFAYETTE. While the band played the "Star Spangled Banner," the statue, which had been draped with the flag of the Governor of Virginia, was unveiled by Capt. Count DE CHAMBRUN, a great-grandson of LAFAYETTE. The statue is so placed that WASHINGTON will be surrounded by his French companions in arms, having on the right a bust of LAFAYETTE and on the left a bust of the gallant SUFFERN. It was in the palace of Versailles that the treaty of peace between Great Britain and the United States was signed in 1783. A list of the American officers and soldiers who fought in the Revolution was sealed in the pedestal of the statue at the request of the State of Virginia. This ceremony was performed by the Marquis DE SEGUR, whose ancestors fought in the American army in the Revolution.



SCENE EN ROUTE TO THE PALACE OF VERSAILLES.

The French Minister of War, General Brun, and his staff on the way to the Palace of Versailles, where the statue was unveiled.

In the absence of the French Minister of Foreign Affairs, M. PICHON, Ambassador JUSSERAND accepted the gift on behalf of the French Republic. He declared that as the friendship of General WASHINGTON and of the American people constituted one of the glories of France, it was especially appropriate that this statue should be placed in the palace consecrated to all her glories. In concluding, he referred to the work of time which had transformed into friends of both France and America the foes of 1783. He also referred to the Franco-American friendship unbroken during the existence of the American Republic. Speeches were also made by Senators HALSEY and KING of the Virginian delegation, and the exercises were closed by the playing of the "Marseillaise."

THE NEW CALI RAILWAY

THE last rails of the 7-kilometer road which has been built from the port of Mallarino (formerly Port Juanchito), Colombia, to the public market of Cali were laid on July 19, 1910. On July 20, which was the centennial anniversary of Colombia, the new road was formally inaugurated. At 2 o'clock the Governor and principal officers of the Department of Cauca, together with the foreign consuls and the prominent citizens of Cali, met in the railroad station there. They were invited to board the waiting trains and make the run to the port of Mallarino, which invitation was accepted by all present. At Port Mallarino the two steamers of the Cauca Navigation Company, which were making their first trip as far as this port, timed their arrival to coincide



SCENES AT INAUGURATION OF THE NEW CALI RAILWAY.

The large picture shows a scene at the new race track on the railroad line near Cali. The smaller picture shows the arrival of the trains and steamboats at Port Mallarino, where the ceremonies took place.

with the arrival of the two trains from Cali, thus making a tableaux much appreciated by the hundreds of spectators on the river banks. There was another assembly in the station, where speeches were made by some of the officials present and the act was signed proclaiming the line duly inaugurated. The return trip to Cali was then made with the trains crowded to the limits.

For about 100 miles down the river there is a regular steamer service, and as freight is able to be brought direct to Cali by means of this new railroad much of the traffic which was formerly sent over other roads will be sent by this route.

LATIN-AMERICA AT PITTSBURG

FOR the purpose of directing the attention of Pittsburg manufacturers to the great opportunities for trade with the Republics of Central and South America, the Chamber of Commerce of that city is making a Latin-American exhibit at the Pittsburg Exposition, which opened its twenty-second annual season on August 31, 1910.

The exhibit is located on the central aisle of the main exposition building, and has one of the best situations in the exposition. The exhibit contains a large map of North and South America, showing the transportation facilities, population, area, and foreign trade of the 21 Latin-American Republics; over 150 views of Central and South



THE LATIN-AMERICAN EXHIBIT AT THE PITTSBURG EXPOSITION.

America, showing industrial, agricultural, and commercial scenes; and the flags and coats of arms of all the American Republics (loaned by Director General JOHN BARRETT, of the Pan American Union in Washington). The exhibit also includes a number of photographs showing some recent hydro-electric power installations in Mexico and Brazil, a large part of the work for which was done by Pittsburg manufacturers; also pictures of new steel buildings and bridges erected in South America. These views show more conclusively than words the wonderful industrial development which is taking place in Latin America.

BASEBALL IN HONDURAS

THE national game of America is fast acquiring a strong hold on the people of Honduras. At the first match game ever played in that Republic, which was held at Tegucigalpa on June 24, 1910, nearly all the prominent people, including many government officials, were present. The national band was also in attendance and helped to make the occasion a great success. The umpire, who is known as *juez del campo*, or field judge, had to give many difficult decisions, as the game was very well played and extremely close and exciting. The game was introduced by the school authorities, who wished to give the youth



Photograph by Mr. Douglas MacDuff.

SCENE AT FIRST BASEBALL GAME IN HONDURAS.

Baseball is now the favorite sport in Honduras. At this game, which was played between members of rival schools, there was a procession around the field headed by the national band and the players, the latter dressed in uniforms composed of bright colors.

of the town some sort of healthful outdoor sport, and the result has far surpassed their most sanguine expectations. Indeed, so popular has the game become that at any time of the day or even of the night boys can be seen in all the principal streets and in the outskirts throwing and batting balls to the danger of the passer-by.

The boys take to the game naturally and play it with the same amazing skill as do their brothers in Cuba, where baseball is a popular pastime. Doubtless in a short time a league will be formed, and the national game of America will be the national game of Honduras also. Baseball is a wonderful game, combining as it does the best qualities of the mind with those of the body, and its adoption by the people of Honduras can only result in their benefit.

BOOK NOTES

"Anthropological Essays," published by G. E. Stechert & Co., New York, 1909, 627 pp., plates, illustrations, etc. (Putnam anniversary volume).

This testimonial to the illustrious curator of the Peabody Museum contains a number of essays of interest to Latin-American students of ethnology and kindred subjects.

In **"The Fish in Ancient Peruvian Art,"** by CHARLES W. MEAD, the author shows that many of the pre-Incan designs that have hitherto supposed to represent animal figures are in reality conventionalized fish forms. The progression from realistic representation to a conventional symbol signifying a fish is shown by figures of Peruvian decorative art taken from certain cloths and pottery vessels.

"The Cruciform Structures of Mitla and Vicinity," by MARSHALL H. SAVILLE, is an exhaustive study of the Mitla tombs, and a comparison with similar structures in Copan and Palenque leads the author to the conclusion that these subterranean buildings with their curious mosaic decorations are of a pre-Zapotecan age, probably the work of the Nahuas. The essay is well illustrated.

"Conventionalism and Realism in Mayan Art at Copan with Special Reference to the Treatment of the Macaw," a short but interesting contribution by GEORGE BYRON GORDON.

"A Curious Survival in Mexico of the Use of the Purpura Shell-Fish for Dyeing," by ZELIA NUTTALL, who suggests that this industry is identical with that of the ancient Phœnician fisherman who caught that species of *"Murex"* which furnished the Tyrian or Royal Purple of the Roman Emperors.

"The Cayapa Numeral System," an account of the curious method of counting in vogue with these Ecuadorian Indians, by Prof. S. A. BARRETT.

"On the Stature of the Indians of the Southwest and of Northern Mexico," by ALEŠ HRDLIČKA, data collected by the Hyde expedition hitherto unavailable.

The volume contains considerable other scientific data of value.

"Camp and Camino in Lower California." By ARTHUR WALBRIDGE NORTH. New York. The Baker & Taylor Co., 1910, 348 pp., plates, illustrations, maps. Price \$3.

The author, who has already added to our pleasure by his delightfully written historical book, **"The Mother of California,"** gives us this time the personal narrative of an extensive trip throughout this most interesting country, long ago known as **"Isla de California,"** the home of fabulous mermaids and amazons and the land of pearls.

Mr. NORTH's story tells us of a mule trip started at San Diego, across the border, continuing down through the whole length of the Peninsula to La Paz and even farther. We are made acquainted with the scenes of WALKER's filibustering fights; then brought across the desert country to the charming settlement of Santa Rosalia.

The author has the faculty of writing in a style that holds the attention continuously, whether he is detailing historical facts or telling of some amusing incident of daily mule-back travel, and we agree with the foreword of Admiral EVANS that "every man with an ounce of red blood in his veins or any fondness for a dash of excitement or a whiff of fresh air will obtain a whole lot of pleasure by reading this book."

"The Brazilian Year Book for 1909." By J. P. WILEMAN, editor of "The Brazilian Review." 826 pp., charts, maps. G. R. Fairbanks, 68 Broad street, New York. \$5.50.

In addition to general descriptive articles dealing with the geography, climate, history, and development of Brazil, this volume contains segregated statistical information of distinct value, such as figures showing imports and exports by countries and articles, including the year 1908, expenditures and revenues, federal and state public debt, shipping movement, etc.

The descriptions of the resources of the different States are of especial value. A comprehensive index has been added, a most welcome improvement; a good map is furnished, and smaller maps showing railroad development are included. Coffee, rubber, and cocoa statistics are given in great detail. All industries show a healthy growth and constant development that reflects the sound economic advancement of this great Republic.

"The Numeration, Calendar Systems, and Astronomical Knowledge of the Mayas." By CHARLES P. BOWDITCH. 340 pp., charts, illustrations, etc. The University Press, Cambridge, 1910.

This book is an exhaustive investigation of the process of numeration and the attainments in astronomy of the Mayan race, the author having made use in his work of the Books of Chilam Balam, the Three Codices, Mayan inscriptions in the original, as well as many Spanish and other writings relative to these people.

The volume contains much original matter in combination with numerous comparisons and discussions that throw light on a little-known subject, and it is to be hoped that it will serve as an inspiration for investigators that will ultimately lead to the solving of the riddle of all Mayan hieroglyphics. The author treats his subject in a most thorough manner.

"La Nacion." This enterprising newspaper of the city of Buenos Aires has taken advantage of the occasion of the centennial celebration of independence to publish what might be classified as a newspaper book which contains exhaustive articles dealing with the history, army and navy, finances, immigration, agriculture, and the railroads of Argentina. There are also special articles on the Argentine woman, native races, the nation in literature, music and the arts and sciences, separate descriptions of the different States and Territories, and, in fact, a wealth of material covering every possible phase of Argentine history and development during the last one hundred years.

"Our Search for a Wilderness," an account of two ornithological expeditions to Venezuela and to British Guiana. By MARY BLAIR BEEBE and C. WILLIAM BEEBE (Henry Holt & Company, New York).

The first section of this book, which includes a trip on the Caños of the Orinoco delta, contains reference to that most interesting of birds, the Hoatzin, which, because of its anatomical construction, might be called the missing link of ornithology. The unique point about the make-up of this bird is that the primary feathers of the young are replaced by a rudimentary claw which serves to assist in climbing.

It is curious that one seldom finds these birds in captivity, as, being unique species, a careful study of their habits would certainly add to ornithological knowledge. We have seen thousands of these odd birds on the banks of the Apure and Orinoco rivers, and it was not our experience to find them in any way shy. Their curious habit of congregating in large numbers on small trees in the afternoons and the continual

clatter they kept up on these occasions suggested sociable inclinations which inspired the designation "club birds," by which name we knew them before becoming acquainted with their scientific cognomen.

The Hoatzins are found throughout South America and that section included between the rivers Orinoco and Amazon, and although known to the natives for centuries, it is only recently that authoritative active scientific data with reference to them has been compiled, Mr. BEEBE, one of the joint authors, assisting considerably in this work.

"**The Mexican Year Book**," a statistical, financial, and economic annual, compiled from official and other returns, 1909-10. Issued under the auspices of the Department of Finance by Mexican Year Book Publishing Company, 32 Broadway, New York City.

This volume contains just the character of information that is most valuable for a business man who wants to know the facts in regard to economic conditions in Mexico. It contains comprehensive tables on trade, finance, mining, and kindred subjects, as well as chapters devoted to agriculture, trade-mark laws and rules of practice, and brief summaries of representative manufacturing companies. One of the most important sections is that relating to railroads and communications. We quote a page devoted to government lines:

The total kilometerage of railways in the Republic was stated by President DIAZ in his message to Congress, delivered on September 16, 1909, as 24,161 kilometers, but of these 4,840 kilometers represent petty lines of a purely local character built under concessions granted by the States. Thus the real aggregate length of railways in Mexico built and operated under federal concessions is 19,321 kilometers, and as the Government owns or controls nearly 14,000 kilometers of that total, the effectiveness of the hold which it has acquired on the transportation system of the country becomes strikingly apparent.

There are two railroads owned outright by the State, viz, the Tehuantepec National Railway, which is operated under a special agreement with Messrs. S. Pearson & Son (Limited), of London, and the Vera Cruz and Isthmus Railway, which, although in a geographical sense may be regarded as part of the Tehuantepec Isthmus, is operated by the Government on its own account.

The state stock-controlled system is the National Railways of Mexico, comprising the merged lines of the Mexican National and the Mexican Central, with the ownership or control of the International, Inter-oceanic, Southern, Hidalgo and North-Eastern, Coahuila and Pacific, Mexican Pacific, and other lines.

The total present kilometerage of the state owned or controlled railways is as follows:

National Railways, including the Hidalgo and Mexican Southern, leased line.....	9,993
Mexican International.....	1,740
Interoceanic Railway.....	1,185
Total kilometerage of lines involved in the merger.....	12,918
To which add:	
Tehuantepec National Railway.....	400
Vera Cruz and Isthmus.....	426
Total kilometerage owned or controlled by the Mexican Government.....	13,744

President DIAZ, in 1907, inaugurated Mexico's great Isthmus route, the railway extending from Puerto Mexico (Coatzacoalcos), on the Gulf of Mexico, to Salina Cruz, on the Pacific, an event of far-reaching importance to the transcontinental and interoceanic traffic of America and the trade of the world in general.

The book also contains geographical descriptions of the different States, the whole being a work of great value to anyone in search of data relative to the Republic of Mexico.

WHAT IS IN THE MAGAZINES

"Mexico's Century of Independence," by ROBERT HAMMOND MURRAY, the leading article in the "*Columbian*" magazine for September, is a strong story of the history of Mexico from the time Hidalgo, the priest of Dolores, sounded the call to arms on the chapel bell of the parish church. After giving a *résumé* of the different events that led up to the Presidency of PORFIRIO DIAZ the author shows vast improvement in the economic conditions in Mexico since 1877. As the railroads are one of the best gauges of national prosperity and development, we quote as follows:

What other country, either in modern or ancient times, can duplicate the progress that has been attained by Mexico in the DIAZ *régime* of a third of a century? Impressive illustration in this connection is supplied by the railroad situation. Before DIAZ's first election there were about 400 miles of line. Mexico now has more than 15,000 miles of railroad, comprising approximately fifty different lines. This is 1 mile of road to each 1,005 of population. The roads represent an investment of between \$500,000,000 and \$600,000,000 gold. The mileage built by various nations, but not necessarily with capital from these nations, is: American, 9,900 miles, or 66 per cent; Mexican, 2,100 miles, or 14 per cent; British and others, 2,920 miles, or 20 per cent. The Government controls five of the principal lines, with a mileage of 6,923. These five lines are included in the merger which was recently completed by JOSÉ YVES LIMANTOUR, Mexico's noted Minister of Finance, whose gigantic life work has been the rehabilitation of his country's finances. The Government also owns, but has not included in the merger, the Tehuantepec National Railway, a competitor in advance of the Panama Canal, and the Vera Cruz and Isthmus Railway, the two comprising a mileage of 470. Thus the Government has actually within its control a total of nearly 7,500 miles of railway.

Another evidence of prosperity is shown by the yearly budgets and reports of the Minister of Finance. Since Señor JOSÉ YVES LIMANTOUR has assumed the portfolio of Minister of Finance for Mexico money conditions in the country have been greatly improved. Mr. MURRAY states as follows:

There have been no deficits in the national budget since that of 1895-96, a year or two after LIMANTOUR became Minister of Finance. Before then there was no budget without its deficit. One Minister of Finance confessed that he could see nothing to save the nation from "marching blindfolded to the inevitable abyss of irremediable bankruptcy." For fourteen years past the excess of ordinary revenues over expenditures annually has ranged from \$800,000 to \$29,000,000. The surplus in 1909 was nearly \$5,900,000. The aggregate surpluses since LIMANTOUR took charge of Mexico's purse have totaled more than \$136,000,000. Of this, \$61,000,000 has been devoted to public works, and the remaining \$75,000,000 converted into a cash reserve. When DIAZ, after being out of office for four years, was inaugurated in 1884, the Government was high and dry financially. The civil employees of the Government had not been paid for three months, the public revenues were in pawn, and the country's credit was worse than poor. To-day her credit is such that she is able largely to dictate her own terms in borrowing operations. The confidence of financiers in her financial stability and the respect with which she is received when she goes in to the money market clearly proceeds from the insistence of the administration that internal peace must be preserved, and from the confidence of the world that DIAZ, and those who succeed him, will enforce it.

The stable government set up and maintained by DIAZ has attracted to Mexico more than a billion dollars of American capital, besides the vast sums poured into her railroad, mining, agricultural, and other developments by investors from across the Atlantic. How widely distributed are Mexico's bonded obligations was illustrated to me recently by the Minister of Finance, who pointed out that 21 nations were represented in the bond coupons redeemed last year. Two years ago 16 nationalities were represented.

The article is a very good statement of the wonderful progress made by our sister Republic during the last half century.

"Constitutional Developments in Foreign Countries during 1908 and 1909," by W. F. DODD, in the "*American Political Science Review*," as the name of the article suggests, the recent constitutional amendments that have been enacted in all foreign countries. Of especial interest to Latin-Americanists are the paragraphs dealing with

changes of this nature, affecting constitutions of the countries of Venezuela, Colombia, and the Dominican Republic. We quote the section referred to:

Venezuela in August, 1909, adopted a new constitution, which replaces that of 1904. This country thus maintains its record of frequent constitutional changes. The new constitution makes slight changes in the method of electing the President and shortens his term of office from six to four years, erects several new States, changes the apportionment of members of the Chamber of Deputies, shortens the term of members of the Chamber from six to four years, and slightly enlarges the power of the Federal Government. A new constitution for the Dominican Republic was adopted in 1908. In the same year Colombia adopted laws and constitutional amendments altering the political divisions of the country, making changes in the composition of the Senate, and amending the election law. A constitutional convention was assembled in May, 1910, for the purpose of further revising the Colombian constitution.

"The Selling Value of Mexican Castilloa," a paragraph that appears in *"Tropical Life"* for August, 1910, gives the following prices of the different classes of castilloa in London:

(1) Light sheet castilloa, clean, fair, strong, attractive in appearance, and slightly smoked. Value 9s. to 9s. 6d. per pound.

(1a) Dark-ribbed sheet castilloa, strong smoked. Value to-day, 9s. to 9s. 6d. per pound.

(2) Sheet, very thin, not so attractive as above lot, fairly strong. Value, 8s. to 6d. to 9s. nominal.

(3) Sheet smoked clean and strong, a portion showing virgin, which somewhat depreciates the value. If free from virgin the value to-day is about 9s. 3d. nominal.

(4) Sheet smoked, virgin fairly strong. Value to-day about 8s. to 8s. 6d.

"The Eighth Unanimous Election of Diaz," by JOHN KENNETH TURNER, in the *"Pacific Monthly"* for September, is an unfair and biased presentation of political conditions in Mexico. The great work which PORFIRIO DIAZ has accomplished is sufficient evidence to refute the prejudiced statements of the muckrakers. He found a nation bankrupt, backward in civilization, a prey for robbers and revolutionists, traversed by but a few hundred miles of railroads, with insignificant commerce and little education, while to-day he governs a country whose bonds find as ready a market abroad as those of the United States and which has 15,000 miles of railroads, that cover the land from border to border. Peace reigns throughout the Republic, and the Mexican Nation ranks among the most progressive and stable sovereignties of the world. These are facts that can not be denied.

The *Overland Monthly* for July, 1910, is the Mexican Centennial Number, containing special articles dealing with conditions in our sister Republic. **"The Awakening of a Nation,"** by PIERRE N. BERRINGER, is the leading article and is a study of the character of the great PORFIRIO DIAZ. This article is followed by various others, all giving ideas of Mexico from different points of view and covering varied topics, from a *résumé* of the finances of Mexico to a technical description of the tramway and power system in Mexico City. There are numerous illustrations which help to give the reader who has never had the opportunity of visiting our sister Republic a correct idea of the progress that has taken place in this country.

"The Business Side of the Panama Canal," by HUGH C. WEIR, in *"Business."* The article goes into a discussion of what might be called "cost of living in the Canal Zone," giving interesting comparisons, with prices of commodities there and in the United States. We quote a table, showing the advantage the housewife living in Panama has over her sister in New York in the matter of her grocer's and butcher's bill:

	New York.	Panama.
	Cents.	Cents.
Veal, loin.....per pound..	22	12
Veal, stewing.....do....	16	8
Sausage, pork.....do....	25	16
Eggs.....per dozen..	35	34
Steaks, porterhouse.....per pound..	25	22
Mutton chops.....do....	22	19
Oranges.....per dozen..	60	12
Butter.....per pound..	39	38
Lard.....do....	17	11

"The United States and Neutralization," by CYRUS FRENCH WICKER, in the *"Atlantic Monthly"* for September, concludes with this significant paragraph:

Who knows but that South America would follow the Republic of the North and, by proposing neutralization throughout her diverse states, lead the nations yet nearer to the distant goal of universal peace?

Now that the nations of the world have been awakened to the realization of the mutual benefit that would accrue to all in bringing about universal peace, it would be a splendid example to the older nations of Europe if the Latin-American countries could bring into existence a court of final arbitration that would decide all disputes of whatever nature between the sovereignties, thus avoiding the consequences of war. To this end the Pan-American Union bends every effort.

"The Mysterious Ruined Cities of Yucatan," by F. J. TABOR FROST, in the *"Wide World"* magazine for August and September, is a record of the explorations of the author through certain portions of Yucatan that have been little visited since the days of STEVENS, the result of whose work through the same country is a classic. Mr. FROST shows only too plainly the need of a large, well-financed expedition, composed of gentlemen of scientific knowledge and tropical experience, that will have as its object the thorough investigation of the little-known country of Chichen Itza and other ancient cities lost in the jungles of Yucatan.

"Japanese Expansion in Latin America," is the subject of a lengthy discussion in the *"Review of Reviews"* of September. The original article is in the French, appearing in *"La Revue du Mois,"* by M. HENRI LABROUE. The article shows how the labor commissions in Latin-American countries offer special inducements for emigrants of the class of Japanese who are accustomed to hard work in tropical and semitropical climates.

"Traffic Returns of the South American Railways." A comprehensive table appearing in the *"South American Journal"* of August 6, 1910.

"British Trade Competitors in South America," by PERCY F. MARTIN, in the same journal, of August 13, shows how South America is becoming the field of the great commercial battle which will undoubtedly end in the exploitation of the wonderful resources of all the countries south of the United States.

"Colombia and Her Railways," is an interesting editorial in the same magazine.

"Painting in Mexico," in the *"International Studio,"* for September, by MARY BARTON. Mr. HOPKINSON SMITH has already turned the eyes of authors toward Mexican fields, and it may be possible that when students see the reproductions of the work done by Miss BARTON in the Sierras of Mexico that others will follow on trails that hold inspiration for some of their best efforts.

"Climate and Man in Peru"—On the coast. The first article, by Dr. LUCY L. WILSON, in the *"Bulletin of the Geographical Society of Philadelphia"* for July, is a synopsis of climatic conditions and the effect of economic prosperity on the Peruvian Republic.

"Notes on the Deserts of the United States and Mexico," in the *"National Geographic Magazine"* for August, tells in part how nature has provided water in some of the great cactus plants that are found in the arid areas of the Southwest.

"The Four Powerful Dreadnoughts under Construction in American Yards." Front illustration of the *"Scientific American"* for August 27, showing a picture of the *Rivadavia* and the sister ship *Moreno*, two powerful battle ships recently ordered by the Argentine Government.

"Panama Canal to be Complete in 1915." A review of the present rate of work being accomplished on the Isthmus in *"Dun's Review"* for September. **"The Banking System of Mexico,"** by ALEXANDER H. WILLIAMS, in the same magazine, is a review of the financial conditions of the Republic of Mexico.

"Windmills for Pumping in Argentina." A copy of a report from Mr. JAMES D. WHELPLEY, United States Commercial Agent at Buenos Aires, in the *"Engineering News"* for August 18.

"A Day in Guanajuato," by ELLIOTT CRANE in the *"Overland Monthly"* for August, is an illustrated description of that quaint, little-visited city of Mexico. **"The Biggest Factor in Developing Mexico's Industrial Possibilities,"** by C. E. FERGUSON, is another article in the same magazine which deals with the importance of the development of hydraulic power in Mexico generally and a specific description of the work being carried on at Necaxa.

"The Personal Recollections of Porfirio Díaz," President of Mexico, contained in the August and September numbers of the *"Cosmopolitan Magazine,"* is a most interesting autobiography, especially at this time when the whole world is taking such keen interest in the work accomplished by this great man.

"El Tratado de Wáshington y la Constitución," in *"Magazin Costarricense"* for August, is an explanation of one of the Central American treaties by Licenciado DON LUIS ANDERSON.

"Climbing Popocatepetl," by PAUL GOODING, in the *"Travel Magazine"* for August, is a story of the difficult ascent and the swift descent of this historic mountain.

"The Railways of Brazil," by LIONEL WIENER, in *"Cassier's Magazine"* for August, is the fourth article dealing with the Bahia intermediate system.

"The Progress of the Panama Canal," by JAMES COOKE MILLS, in *"Moody's Magazine"* for August, tells of the latest construction work taking place in the Isthmus country. Four excellent illustrations give a graphic idea of the progress of the work.

"The Panama Canal" by VAUGHAN CORNISH, D. Sc., F. R. G. S. This is another article also dealing with the same subject, appearing in the *"Scottish Geographical Magazine"* for August. A two-colored map on a small scale shows the position and the profile of the canal when finished.

"Domestic Corporations in Mexico, Their Organization, Rights, and Duties" is the title of an article by M. CERVANTES RENDON in the *"Bankers Magazine"* for August. This is an epitome of the laws dealing with the organization and conducting of corporations in the Mexican Republic.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO SEPTEMBER 15, 1910.

Title.	Date of report.	Author.
ARGENTINA.		
Agricultural statistics of Argentina for 1910.....	1910. June 8	R. M. Bartleman, consul-general, Buenos Aires.
Argentine foreign trade, first quarter of 1910.....	June 11	Do.
Argentine international trade.....	June 17	Do.
Maps exhibiting Argentina's agricultural statistics.....	June 20	Do.
Trade notes: Population of Buenos Aires. Belgian syndicate investigating petroleum fields in Province of Salta. Argentine Republic's net gain from immigration from January 1 to May 31, 1910. Directors of the London and River Plate Bank declare dividend of 8 per cent. Opportunities for American banking institutions never better. The Argentine Club founded in London May 12, 1910, capitalized at \$243,325, to carry on business of nonpolitical club for use of persons concerned with Argentine Republic.	June 22	Do.
Trade opportunity: Medical goods—Hospital supplies.....	do.	Do.
Market for American stationery in Argentina.....	June 29	Do.
Locusts in Argentina—Bulletins of "Defensa Agricola".....	July 19	Do.
Wine and sugar in Argentina.....	July 28	Do.
BRAZIL.		
Coffee market customs.....	June 6	G. E. Anderson, consul-general, Rio de Janeiro.
Distribution of Brazilian trade.....	do.	Do.
Typewriters in Brazil.....	June 10	P. M. Griffith, consul, Pernambuco.
Subsidized industries in Brazil.....	June 11	G. E. Anderson, consul-general, Rio de Janeiro.
Five years of Brazilian trade.....	June 17	Do.
Sanitation and prophylaxis in Brazil.....	June 28	J. J. Slechta, vice-consul-general, Rio de Janeiro.
Electric railroad for iron-ore transportation.....	July 3	Do.
Review of coffee crop of 1909-10.....	July 6	Do.
Photographic supplies in Brazil.....	July 14	Do.
The Brazilian State, Minas Geraes.....	July 20	Do.
Rope and twine in Brazilian markets.....	do.	Do.
CHILE.		
Roller skating in Chile.....	July 13	C. E. Baker, vice-consul, Valparaiso.
Foreign commerce of Chile for first six months of 1910.....	Aug. 9	A. A. Winslow, consul, Valparaiso.
Test of iron manufactured by Sociedad Altos Hornos.....	do.	Do.
DOMINICAN REPUBLIC.		
Transmitting newspaper notes.....	July 16	P. E. Holland, consul, Puerto Plata.
Report on wire screens for doors and windows.....	Aug. 10	Do.
GUATEMALA.		
Statistical report.....	Aug. 6	W. Owen, vice and deputy consul-general, Guatemala.
MEXICO.		
Annual report on commerce and industries.....	June 2	Marion Letcher, consul, Acapulco.
Regulations concerning importations of firearms into Sonora.	June 17	A. V. Dye, consul, Nogales.
Opportunities in Chiapas.....	June 20	A. W. Brickwood, jr., consul, Tapachula.
Cure for tetanus (lockjaw).....	do.	Do.
Rubber in Chiapas.....	June 25	Do.
Establishment of automobile mail route from Iguala to Chilpancingo, Guerrero.	June 26	Marion Letcher, consul, Acapulco.
Report of toys.....	June 29	Arnold Shanklin, consul-general, Mexico City.
Establishment of agrarian section for the Department of Fomento.	do.	Wm. W. Canada, consul, Veracruz.
Maritime movements at Mazatlan.....	July 2	W. E. Alger, consul, Mazatlan.

REPORTS RECEIVED TO SEPTEMBER 15, 1910—Continued.

Title.	Date of report.	Author.
MEXICO—continued.		
Recovery of gold by dry-washing process in Altar district.	1910. July 9	A. V. Dye, consul, Nogales.
Comparison of declared exports from Chihuahua district for first six months of 1909 and 1910.	...do.....	L. J. Keena, consul, Chihuahua.
Report on importations and exportations for March, 1910, and nine previous months of fiscal year.	July 12	Arnold Shanklin, consul-general, Mexico City.
The breeding and raising of goats in southern Mexico.....	July 13	Wm. W. Canada, consul, Veracruz.
Guayule plant in district of Ciudad Porfirio Diaz.....	July 14	L. T. Ellsworth, consul, Ciudad Porfirio Diaz.
State fair to be held at Victoria in September.....	July 16	C. A. Miller, consul, Tampico.
Artificial limbs and orthopedical supplies.....	July 19	Wm. W. Canada, consul, Veracruz.
Report on importations and exportations for April and ten previous months of fiscal year 1909-1910.	July 22	Arnold Shanklin, consul-general, Mexico City.
Sports in Mexico.....	July 27	S. A. Magill, consul, Guadalajara.
Suggestions for colonists in Chiapas.....	July 30	A. W. Brickwood, jr., consul, Chiapas.
Ready-made working clothes.....	...do.....	Wm. W. Canada, consul, Veracruz.
Packing house for Guadalajara.....	Aug. 1	A. E. Magill, consul, Guadalajara.
Mining industry in Chihuahua.....	Aug. 2	L. J. Keena, consul, Chihuahua.
Brewery at Culican.....	...do.....	C. B. Parker, vice and deputy consul, Sinaloa.
The appearance of locusts in Yucatan.....	Aug. 8	G. B. McGoogan, consul, Progreso.
Lands in Chiapas.....	Aug. 10	A. W. Brickwood, jr., consul, Chiapas.
Packing American goods for export.....	Aug. 15	C. A. Miller, consul, Tampico.
Steam rollers.....	Aug. 16	Do.
Horseshoeing.....	...do.....	Do.
Report on importations and exportations for May and eleven previous months of fiscal year 1909 and 1910.	Aug. 17	Arnold Shanklin, consul-general, Mexico City.
Gasoline engines and pumps.....	Aug. 22	J. J. Johnson, consul, Matamoros.
Trade opportunities in Mexico.....	Aug. 29	Wm. W. Canada, consul, Veracruz.
PARAGUAY.		
Sending small parcels by mail to Paraguay.....	May 17	C. Ferris, jr., consul, Asuncion.
Annual report on commerce and industries of 1909.....	June 9	Do.
The use of steam rollers in Paraguay.....	June 28	Do.
URUGUAY.		
Automobiles in Uruguay.....	June 23	F. W. Goding, consul, Montevideo.
The live stock of Uruguay in 1908.....	June 28	Do.
Population of Latin America.....	July 8	Do.
First shipment of frozen meat from Montevideo to the United States.	July 9	Do.
Some exports of Uruguay for 1910.....	July 10	Do.
Montevideo port works extension.....	July 13	Do.
VENEZUELA.		
Projected cultivation of bananas.....	June 17	R. J. Totten, consul, Maracaibo.
Coastwise steamship service of Venezuela.....	June 18	I. A. Manning, consul, La Guaira.
Petroleum deposits in Venezuela.....	June 22	R. J. Totten, consul, Maracaibo.
Venezuelan Notes: Permission granted to company navigating the river Tuy to extend their service along coast; the company has imported two American gasoline launches for such trade. The Government has appointed a hygienic inspector for a syndicate which will soon begin to ship beef in cold-storage ships to England and the European continent. The Government has appropriated \$5,790 monthly for the Central cart road of Tachira. The killing of cows fit for reproduction in Guarico and Aragua is absolutely prohibited. The Government military and naval schools at Caracas have opened. Law pending requiring the teaching of temperance in public schools of Venezuela. Concession granted for the establishment of factories for the manufacture of beef extract and other byproducts of beef. Comparison of railroad traffic of fourth quarter of 1909 with third quarter of same year.	June 23	I. A. Manning, consul, La Guaira.
Customs changes.....	July 4	Do.
Resolutions concerning assessment of duty on coarse canvas and cotton wicks.	July 9	L. J. Verhelst, vice and deputy consul, Puerto Cabello.
Recent changes and additions in tariff.....	July 21	S. Whitehouse, chargé d'affaires, Caracas.
Export bounties removed.....	Aug. 5	I. A. Manning, consul, La Guaira.
Decree annulling previous one relative to exploitation premium.	Aug. 6	L. J. Verhelst, vice and deputy consul, Puerto Cabello.
Report on meat export.....	Aug. 7	Do.

ARGENTINE REPUBLIC

FOREIGN TRADE.

The following statement shows the trade of the Argentine Republic with the leading countries during the first quarter of 1910:

Country.	Imports.	Exports.
United States.....	\$11,773,060	\$8,228,272
United Kingdom.....	26,299,178	18,380,708
Germany.....	16,089,554	14,065,828
France.....	8,474,105	15,193,338
Belgium.....	4,657,772	9,828,667
Italy.....	7,339,114	2,514,946
Brazil.....	2,297,149	4,494,177
Spain.....	2,597,691	599,116
Holland.....	600,092	907,097
Austria-Hungary.....	849,763	614,461
Switzerland.....	794,256	.....
All other countries.....	3,908,231	4,681,817
For orders.....	.....	31,623,379
Total.....	85,679,965	111,131,806

The values indicated in the above table are expressed in United States currency. The percentages of increase in the imports from the three leading countries are as follows: Germany, 41.4; United States, 35.7; United Kingdom, 14. The percentages of the total imports held by the three countries are as follows: United Kingdom, 30.75; Germany, 18.8; United States, 13.7.

The principal exports from the Argentine Republic for the first seven months of 1909 and 1910 were:

	1909.	1910.
Dry oxhides.....number..	1,224,281	1,536,839
Salt oxhides.....do....	1,131,688	1,277,616
Dry horsehides.....do....	71,657	83,849
Salt horsehides.....do....	8,370	11,835
Sheepskins.....bales..	36,082	42,404
Goatskins.....do....	3,961	2,111
Wool.....do....	290,781	232,552
Wheat.....tons..	2,409,232	1,363,224
Maize.....do....	1,279,605	719,795
Linseed.....do....	777,624	530,366
Oats.....do....	429,703	270,996
Quebracho.....do....	154,239	243,268
Quebracho extract.....do....	34,313	36,501
Hay.....bales..	300,807	457,003
Butter.....cases..	80,665	80,075
Frozen beef.....quarters..	851,939	761,892
Chilled beef.....do....	573,228	804,784
Frozen mutton.....carcasses..	1,520,954	1,242,222
Frozen lamb.....do....	293,663	214,256

THE NATIONAL BUDGET.

The budget for 1911 has been sent to Congress, and it is accompanied by a presidential message. In this it is stated that the expenditures in 1909 amounted to \$299,758,416, and that the revenue

for the same year was \$275,420,047, to which has to be added various amounts from the sale of bonds, etc., which bring the total revenue up to \$307,235,337. For the first six months of the current year the revenue is in excess of the estimates by about \$30,000,000. The internal debt at the end of 1909 amounted to \$115,245,300 paper and \$87,483,900 gold, and the external debt to \$311,513,829 gold. Mention is made of the considerable increase in the trade returns, and the general outlook is stated to be satisfactory. The budget figures do not differ from those for the current year, as in view of the fact that the present Government goes out of office on October 12 it has not been thought advisable to make any alterations. Special mention is made concerning salaries which the Government is of the opinion should remain as they are, in view of the fact that a bill dealing with this question is now being studied in Congress.

AGRICULTURAL DEFENSE.

The committee of the Chamber of Deputies appointed to investigate the work of the Committee of Agricultural Defense (its principal business is the destruction of the locusts) has made its report which declares that the committee has discharged its duties satisfactorily.

With a view, however, to further increasing the efficiency of this institution, the report in question recommends that the committee should cease to be an autonomous body and that it should be made a dependency of the Ministry of Agriculture.

The investigating committee submits the draft of a new bill which it believes should be enacted into law. "The Standard," of Buenos Aires, summarizes some of the more important features of the bill as follows:

The committee recommends that the executive power should be asked to include in the general accounts the estimated expenditure of the defense committee for the year 1911.

The properties within the zones of invasion will be divided into three categories: Agricultural, pastoral, and unoccupied land. The owners, tenants, or occupiers of the first two categories must, within twenty-four hours, give notice to the committee, or to its agents, of the appearance of locusts, and of their movements, etc. The owners, etc., of the said categories must employ in the destruction of locusts one man for every 50 and 500 hectares, respectively. On unoccupied lands the work will be at the expense of the committee. The railway companies must give similar notice and employ 3 men per kilometer invaded, but not exceeding 100 men for 100 kilometers. Locusts in public roads must be destroyed by the provincial or municipal authorities.

Zinc plates will be supplied to applicants at the rent of 2 cents per linear meter, but in certain cases gratuitously.

The executive power will make regulations respecting the buying of locusts and their eggs.

Fines will be imposed for nonfulfillment of the mentioned obligations and for using the zinc plates for any other object than defense against locusts.

The budget is to provide, in addition to the ordinary expenses of the new department, for the purchase of zinc plates and of locusts and eggs.



AVENIDA DE MAYO, BUENOS AIRES.

The decorations are in honor of the centenary of independence of the Argentine Republic.



AVENIDA DE MAYO, BUENOS AIRES, AT NIGHT

Hundreds of thousands of electric lights were used in illuminating the city during the centenary celebration.

The funds for payment of these additional expenses will be created by a tax of 1 cent for every bag (of sacking) imported or manufactured in the country, by 1 per thousand additional for the statistics tax imposed by the law 4,933, by the rents received for zinc plates, by the proceeds of fines.

The executive power is to procure an international conference with neighboring nations for developing joint action in the destruction of locusts.

A prize of 100,000 gold *argentinos* is to be offered to the discoverer or inventor of an agent for the extinction of locusts by an economical proceeding, without danger, and of which the efficacy shall be fully proved without any charge to the Government except the expenses of trial and proof.

CENTENNIAL PUBLICATIONS.

The number and great practical value of the centenary publications calls for special comment. The special centennial issue of "La Nación" consists of 768 solid pages of letterpress and illustrations. It is distinctly a triumph for Argentine journalism and will add greatly to the prestige of that great newspaper. As a work of reference it will be invaluable to the student, inasmuch as it contains a concise, coherent account of each province and of all the principal industries of the country. The compilation of such a mass of interesting and well-written data on such a variety of topics was a gigantic undertaking, and that it was carried out successfully is greatly to the credit of its promoters.

Many other centennial publications have been issued not only in Spanish, but also in English. These constitute up-to-date encyclopedias and should prove most useful works of reference for the student, statesman, or anyone, for that matter.

BUENOS AIRES, POPULATION IN 1910.

The statistics of the city of Buenos Aires afford most instructive reading and no figures quoted are more gratifying than those relating to the growth of the city. The population of Buenos Aires on June 30, 1910, was 1,270,234, as compared with 1,204,007 on the same date of 1909.

When one stops to think how few cities there are in the world with a population of more than a million, the figures are most significant. Certainly for population, wealth, and culture, Buenos Aires ranks high among the world's greatest cities.

Nor is Buenos Aires the only large city in Argentina; Rosario has a population of approximately 200,000, and the city of La Plata nearly 100,000 inhabitants.

BIDS FOR 20,000,000 METERS OF ZINC SHEETS.

The Argentine Legation is in receipt of a cablegram from its Government, dated Buenos Aires, September 14, advising that the "Defensa Agricola" (Agricultural Defense, a bureau for the protection of agriculture, under the Department of Agriculture), had

been authorized to invite bids for 20,000,000 meters (each meter equal to 39.37 inches) of zinc sheets to be used as barriers in fighting the invasion of locusts. The bids from manufacturers were closed on September 20. Bidders were required to make a deposit of 1 per cent of the value of the bid, which deposit must be increased to 10 per cent of said value as a guaranty of the fulfillment of the contract.

PRESIDENT-ELECT SÁENZ PEÑA.

The New York Herald's Buenos Aires correspondent, in a cable dispatch to his paper, quotes Dr. ROQUE SÁENZ PEÑA as saying:

I have the kindest feeling for the United States and will work to not only continue the present amicable and intercommercial relations but will strive to accentuate them. The United States, with its hundred million people, should be a most valued friend, and I realize how important it is for us to have that friendship.

American commerce will be given every opportunity in Argentina during my administration. I will leave no stone unturned to encourage it. One thing I particularly want is increased direct steamship facilities between New York and Buenos Aires. I regret much that I have been unable to accept the invitation of the United States and visit that country, but there is so much to be done now here, and as the invitation reached me after my plans were made, I could not accept.

THE UNITED STATES LEGATION.

"La Prensa," of June 16, in commenting on the increase in the personnel of the United States legation in Buenos Aires, attributes this new arrangement to the growing importance of the relations between the two countries.

When Mr. SHERRILL was first appointed, there was but one diplomatic officer in the legation, while now, including his two private secretaries, there are six.

AMERICAN FIRMS AWARDED CONTRACT FOR RAILWAY CARS.

United States Minister SHERRILL reported under date of September 13 that the Argentine Minister of Public Works had awarded a contract for the building of railway cars entirely to American firms. The American Car and Foundry Company were granted a contract involving the expenditure of \$1,000,000, and the Harlan-Hollingsworth Company another amounting to \$400,000.

WINE AND SUGAR INDUSTRIES IN ARGENTINA.

Consul-General R. M. BARTLEMAN has forwarded the following report on the wine and sugar making industries in Argentina:

The wine-making industry is one of the most promising and best developed of the country. The production of wine has increased remarkably in the last twenty years and the quality has improved also. There are 3,409 wine-making establishments in the country, with a total capital, exclusive of the value of the vineyards, of \$27,758,866. The total annual production of wine in the Republic is estimated at about 380,000,000 liters, of the value of nearly \$25,476,000. Besides the wine, nearly 2,000,000 liters of

alcohol are produced, the value of which is estimated at \$281,458. The number of persons employed permanently in this industry is 9,635, while the services of more than 36,000 are required during the wine-making season.

The number of sugar mills in the Republic is 57, and the capital employed is estimated at \$31,594,882. The annual sales amount to \$19,841,853, and the raw material employed is valued at \$7,820,907. The number of men employed in the mills is 8,335, and 30,256 are employed on the cane plantations, etc.

NEW STEAMSHIP LINE BETWEEN ARGENTINA AND EUROPE.

Consul-General R. M. BARTLEMAN reports that a company has been organized in Europe, called the Anglo-Belgian and Hamburg Plate Line Company, to conduct a fortnightly service between Hamburg and other western European ports and Buenos Aires. It is also said that the Lamport and Holt Line is to place a new passenger steamer on their New York-Buenos Aires route, even finer than its new 12,000-ton *Vasari*. If so, the tribute our exporters will have to pay to foreigners for carrying their goods will be greater than ever.



INCREASED CAPITAL OF BANKS.

The board of directors of the National Bank of Bolivia has decided to increase its capital to £1,000,000 sterling, for which purpose negotiations are already under way with Paris bankers.

The Mercantile Bank and the "Banco Francisco Argandoña" also propose to increase their capital £1,000,000 sterling each.

ISSUE OF BANK NOTES.

The Minister of Finance has authorized the National Bank of Bolivia to issue 300,000 bank notes of the denomination of 10 *bolivianos*.



DISCOVERY OF COAL DEPOSITS AT PERNAMBUCO.

"The Brazilian Review," in its issue of August 16 last, contains the following article on the recently discovered coal fields of Quixambinha, in the State of Pernambuco:

Quixambinha has every appearance of a true carboniferous zone. It is situated 300 meters above sea level, 22 kilometers from Jatoba terminus of the Paulo Affonso Railway, and covers an area of about 18 square leagues. The first vein of coal was found at a depth of 20 meters under a bed of clay mixed with sand and coal fragments, im-

pregnated with sulphides. The conglomerate accompanying the vein shows that the coal is of the same age as what is found in Europe in deposits of the "Culm" formation.

An analysis shows that while it is not so good as Cardiff coal, it is, nevertheless, of very good quality. The analysis gave the following result:

	Per 100 grams.
Evaporation.....	1. 200
Volatile matter.....	18. 815
Ash.....	20. 520
Carbon.....	58. 733
Loss.....	. 032

The coal field is so advantageously situated that by utilizing the Paulo Affonso Railway it can be profitably worked to supply the States of Pernambuco, Bahia, Alagoas, and Sergipe.

MERCHANT MARINE.

A country with 10,000 miles of navigable waterways open to river steamers and oceangoing vessels should possess a great merchant navy. That the Government of Brazil realizes the benefits which would accrue from a more extended use of its natural waterways may be gathered from the following extract from President PEÇANHA'S message to Congress:

Our national mercantile marine requires legislation for its organization and to regulate its extension and the reduction of freights. A law for this purpose awaits discussion in the National Congress, and the Government has appointed a competent commission to ascertain the condition and capacity of the existing fleet.

On the 31st of December last the Government renewed the contract with Brazilian Lloyds, extending for six years the period of the subvention, while the company has undertaken to introduce various improvements and, particularly, to reduce by an average of 20 per cent the rates for carrying goods.

BANK OF BRAZIL.

The Bank of Brazil, which has extended the beneficent influence it exercises over the entire economic and financial system, is daily increasing in prosperity. Its balance sheets indicate not only the accuracy and efficiency of its management, but the progress of Brazilian trade movements.

The balance in the hands of the bankers in March stood at £4,909,-164, the country's intact credits represented £1,180,000, and the exchange purchased for delivery at short date was £2,067,641, or a total of £8,156,805.

The plentiful supply of rubber for export, the bright outlook for the new crop of coffee and other produce, as well as the foreign capital which will be imported by reason of credit operations recently effected, add to the favorable aspect of the situation.

INDUSTRIAL STATISTICS.

Statistics compiled under government auspices show that the capital invested in 3,258 factories stands at 665,576,663 milreis, that in them over 150,000 operatives are engaged, and that their

output amounts to over 741,000,000 milreis. These statistics show the marked decrease in the importation of articles of general consumption now manufactured in Brazil.

The textile factories occupy the leading place and indicate the development of which the cultivation and manufacture of cotton is capable in this country, where there are regions capable of growing cotton on a vaster scale than in North America.

Another aspect worthy of attention is the question of motive power. The motive power is now mainly derived from steam. At present electricity is used only on a small scale, but hydraulic power is far more widely adopted, although in a rudimentary fashion. When the water power available in Brazil can be converted into electric energy and conveyed to a distance, the waterfalls will furnish motive power for machinery on such a scale as would never be possible by means of imported coal.

INDUCEMENTS FOR THE ERECTION OF SMELTING PLANTS.

In line with the policy of the present administration in fostering and developing the smelting industry in Brazil, a decree has recently been promulgated offering special advantages to persons or companies who shall erect plants for the manufacture of iron, including blast furnaces, the installations necessary for transforming the pig-iron product into wrought iron or finished steel, sheet mills, foundries, etc. The special inducements offered are a reduction in freight rates on the fuel, ore, machinery, and finished product transported over the federal railway lines, together with exemption from import and other duties on all machinery imported for use in the smelting plants.

As is well known, Brazil possesses large deposits of excellent iron ore. An examination of the deposits of the State of Minas Geraes, which was recently made by a commission of Brazilian mining engineers, shows that they contain not less than 12,000,000,000 tons of very high-grade ore, on or near the surface and in situations permitting easy working. The country is undoubtedly destined to take a commanding position in the iron markets of the world. At the present time these resources are utilized only to a very limited extent. It is, therefore, a matter of no small importance that measures are being taken to develop these hitherto unexploited resources of the country.

NEW RAILWAY MILEAGE.

During the month of May, 1910, 800 kilometers of new railway lines were opened to traffic in Brazil. The new mileage is distributed as follows among the various systems:

On the Rio Grande do Sul Railway, the following sections were inaugurated: The line between Passo Fundo and Capoeira, 84 kilometers; between Montenegro and Barreto, 45 kilometers; Nova

Vicenza to Carlos Barboza, 28 kilometers; Carlos Barboza to Caxias, 20.27 kilometers; the Ijuby branch, 30 kilometers.

On the São Paulo-Rio Grande Railway: President Penna to Limeira, 104.14 kilometers; São Francisco to Hansa, 96 kilometers.

On the Northwestern, the section between Anhangaby and Itapura, 96 kilometers.

On the Goyaz Railway: Between Franklin Sampaio and Bambuhy, 32 kilometers.

A section 22.49 kilometers in length on the Victoria-Diamantina Railway, extending from Curralinho to Roca do Brejo.

On the Southern Minas Railway: 7.57 kilometers of the Alfenas branch; the section from Baependy to Fazendinha, 13 kilometers.

Brazilian Central: The section between Lassance and Pirapora, 96.5 kilometers in length.

NEW RAILWAY COMPANY.

"The Brazil North Eastern Railway, Limited," is the title of an English company which has recently been authorized to operate in Brazil. The company has for its main object the acquisition and exploitation of the Baturite and Sobral Railways in the State of Ceará, now controlled by the Federal Government. It will also acquire, build, or operate steam railways, street railways, telephone and telegraph services, build public works, power and light plants, and other public services.

NEW INDUSTRIAL ENTERPRISES.

An English company organized under the name of "The Diamantino Rubber Plantation (Limited)" has recently been authorized to operate in Brazil. The company has for its main objects the purchase or lease of lands for the cultivation of rubber, coffee, tea, cacao, sugar, and tobacco, and to trade in the same. The capital of the company is fixed at £250,000.

"The Rubber Corporation of Brazil (Limited)" is another English company which has been incorporated for the same purposes.

CUSTOMS REVENUES, FIRST QUARTER OF 1910.

The revenues collected at the various custom-houses of Brazil during the first quarter of 1910 amounted to 76,418,336 milreis, compared with 60,875,973 milreis for the same period of 1909.

ABOLITION OF 2 PER CENT SURTAX AT PORT OF PARA.

Beginning with July 1, 1910, imports at the port of Para will no longer be subjected to the payment of the additional duty of 2 per cent gold, for the service of the capital employed in the port improvement works. By a decree of June 2, 1910, this tax has been suspended.

EXPORTATION OF FRUITS.

A firm in São Paulo, which is making experiments in exporting Brazilian fruits, shipped to New York by the *Verdi*, sailing from Rio on June 18 last, over 3 tons of bananas and pineapples, which were distributed gratis among fruit importing firms of that city. The manager of the firm accompanied the shipment and supervised the distribution of the fruit.

INDUSTRIAL NOTES.

The concession for the laying of a telephone cable between Rio de Janeiro and Niteroy has been transferred to the Interurban Telephone Company of Brazil.

The opening to traffic of the section of the São Paulo-Rio Grande Railway, comprised between Santa Maria and Passo Fundo, has been fixed for October 30, 1910. With the completion of this section direct railway communication will be established between Rio de Janeiro and Porto Alegre.

Dr. EUGENIO DAHNE, the Brazilian commissioner now in the United States in connection with the work of the Trade Expansion Commission, is making an extended visit to the Pacific Coast. While in the United States Doctor DAHNE will contract the services of ten agricultural experts to act as instructors in the various branches of farming at the agricultural colleges of Brazil.

IMMIGRATION STATISTICS.

Last year 85,410 immigrants came to Brazil, 23,000 of these being of the agricultural class. About a fourth of these were subsidized and their object in immigrating was to become landowners.

The statistics of voluntary immigration are now 66 per cent higher than the figures were in the days of subsidized immigration.

THE TARIFF COMMISSION.

The commission appointed to study the reform of the customs tariff has worked steadily. The Government aims at obviating further increases and at maintaining the present level when it is not possible to reduce it.

MARKET FOR PHOTOGRAPHIC SUPPLIES.

Vice Consul-General SLECHTA reports that Brazilian markets afford a demand for photographic supplies and sundries which it is well worth the while of American jobbers and manufacturers to cultivate. The demand is as yet confined to the larger towns and cities, but there is already a marked tendency toward the extension of the trade to the smaller towns. Amateur photography is

quite common and, owing to the high prices charged for studio work, it is in this line that the trade will be most apt to extend considerably. Owing to the high cost of card mounting, very little mounted work is put out, and dealers who make a specialty of selling photographic views, of whom there are many, very seldom offer for sale the mounted photographs.

FAVORABLE MARKET FOR TYPEWRITERS.

Consul P. M. GRIFFITH reports that among the meritorious articles of American manufacture and especially recognized as such throughout South America is the typewriter. Several of the leading manufacturers of the United States who have already established agencies and salesrooms do practically all this business, which is as yet in its infancy. There is an opportunity for American manufacturers to extend their trade in this line and those interested should send out representatives who are familiar with the trade conditions and who speak Portuguese. All correspondence carried on and all catalogues and price lists should be printed in Portuguese. The duty on any typewriter of any description or weight is about \$17.40 American money.

CONSTRUCTION OF SLAUGHTERHOUSES AND COLD-STORAGE PLANTS.

The Bureau of Agriculture and Animal Industry has called for bids for the construction of model slaughterhouses in the States of Pernambuco, Bahia, Rio de Janeiro, Minas Geraes, São Paulo, and Rio Grande do Sul, and for the establishment of cold-storage plants at Rio de Janeiro, Recife (Pernambuco), São Salvador (Bahia), Santos, and Porto Alegre.

SANITATION AND PROPHYLAXIS IN BRAZIL.

Vice Consul-General SLECHTA, Rio de Janeiro, informs us that the noted Brazilian scientist, Dr. OSWALDO CRUZ, who received much credit for work in reforming the sanitary conditions of the capital city of Brazil, is waging a campaign against yellow fever in the Amazon Valley in the north of the Republic. If this work is successful in the section where the fight is now being waged, the scientist will then attack the dread disease at Para, at the mouth of the Amazon. Should the yellow fever be exterminated the Amazon Valley would be rid of its chief handicap, and the vastly rich territory would be brought in closer contact with the outside world.

REVIEW OF THE COFFEE CROP IN 1909-10.

In this review Vice Consul-General SLECHTA gives the total number of bags as 15,051,756. Of this crop, 2,000,000 bags were carried over to the season of 1910-11. This season's crop is of course

lessened because of the rather unfavorable weather, and reports are conflicting as to its amount. There is a current opinion, however, that there will be at least 1,000,000 bags with which to begin business on July 1, 1911.

ELECTRIC RAILROAD FOR IRON-ORE TRANSPORTATION.

The President of the Republic recently assisted in laying the corner stone of one of two 32,000-horsepower electric power stations. These power stations will furnish power to operate 400 miles of electric road, which will tap one of Brazil's greatest sources of wealth in iron. Vice Consul-General SLECHTA says that the main object of the road is to transport ore, and it is expected to transport at least 3,000,000 tons annually.

SUBSIDIZED INDUSTRIES.

Consul-General ANDERSON reports that the chief beneficiaries under the subsidy system in Brazil are the railroads. So far as can be ascertained there is not a single line of railway in Brazil which does not enjoy federal or state government aid. Steamship lines, both at home and with the United States, are heavily subsidized. The latest development of the subsidy system is in the way of direct payments of money for production in certain lines in which the Government is interested. For instance, the Federal Government of Brazil will pay \$4,500 per annum for each 494 acres planted in wheat, and \$4,500 for each mill grinding 1,400 bushels of Brazilian wheat per annum. In nearly all lines new industries are favored by grants of free importations of materials and appliances for their first establishment.

THE BRAZILIAN STATE OF MINAS GERAES.

The recently published report of the Governor of Minas Geraes, the most populous and progressive State of the Brazilian Union, offers some interesting data on its material welfare. This State has a population of 4,500,000. The government of the State has adopted a system of agricultural instruction as a means of bringing about a more diversified farming. Eleven new colonies of immigrants were established at the expense of the State, and 744 pupils were maintained at the State's expense at schools and experiment stations where scientific farming was taught them. The shipments from this State have increased greatly in the past ten years. In financial matters also the year 1909 shows improvement over previous years. ■

CHILE

FOREIGN TRADE, FIRST HALF OF 1910.

According to the Division of Commercial Statistics of the Department of Finance of Chile, the foreign trade of that Republic during the first half of 1910 amounted to 265,119,239 *pesos* of 18d., of which sum 129,842,805 *pesos* were for imports and 135,277,434 *pesos* for exports.

Comparing these figures with those of the same period of 1909, we notice that in the latter year there was an increase of 16,514,031 *pesos* in imports and 11,829,901 *pesos* in exports.

CUSTOMS REVENUES.

During the first half of 1910 the revenues collected at different ports of the Republic were as follows:

IN GOLD.		Pesos of 18d.
Import duties.....		22, 835, 648
Export duties.....		34, 100, 506
Storage dues.....		150, 867
Light-houses and beacons.....		277, 230
Total.....		57, 364, 251

IN PAPER.		Pesos.
Surtax.....		15, 217, 748
Wharf dues.....		8, 148
Unloading and transport dues.....		757, 040
Total.....		15, 982, 936

DREADNOUGHTS FOR CHILE.

On August 30 last the Chilean Government issued formal invitations for bids on the construction of two 25,000-ton, battle ships, having a speed of 23 knots; the bids to be submitted on or before October 31, 1910.

The plans for the battle ships were drawn by a British naval architect, and according to specifications the guns and certain machinery must be of English design. Four of the largest naval constructing companies of the United States have been invited to submit bids.

CONSTRUCTION OF NEW LIGHT-HOUSES.

As up to the present date the light-house service on the extensive coast of the Republic has been very deficient, and taking into consideration that such a service is of the utmost importance for



SEÑOR ELIAS FERNANDEZ ALBANO,

Vice-President of the Republic of Chile, who died at Santiago on September 7, 1910.

Señor Fernandez Albano, as Minister of the Interior, and in accordance with the Constitution of the Republic, assumed the Presidency upon the death of President Montt, which occurred in Bremen Germany, August 16, 1910.



RECOLETA CHURCH, SANTIAGO, CHILE, WHERE THE FUNERAL OF ACTING PRESIDENT ALBANO TOOK PLACE.

It is one of the most beautiful of Chile's many churches, and is situated in the eastern section of the city, surrounded by handsome residences and public buildings.

the commerce of the country, the Chilean Executive has recently submitted to the Congress a message requesting an appropriation for the construction of 25 light-houses, a sufficient number to complete in a satisfactory manner the light-house service of the Republic.

Of these light-houses, 8 will be established in the Strait of Magellan, 2 on Cape Horn, 2 in the Gulf of Penas, 2 in the Chiloe Archipelago, and the remaining 11 along the coast from the port of Corral up to that of Arica.

It is understood that the construction of these light-houses will be done by contract, bids for which are to be submitted.

THE ELECTRIFICATION OF GOVERNMENT RAILWAYS.

The commission of experts appointed for the purpose recently submitted to the Government a comprehensive report in regard to the electrification of the government railways in the first section.

The conclusions reached by this commission are all in favor of such a change, and it is expected that the Chilean Legislature will adopt the report which has been submitted to its consideration.

FOREIGN COMMERCE FOR FIRST SIX MONTHS OF 1910.

Consul A. A. WINSLOW reports that the foreign commerce of Chile increased \$9,363,445 United States gold for the first six months of 1910, as compared with the same period of 1909. Of this increase \$6,127,610 United States gold was in imports and \$3,285,835 in exports. The total imports amounted to \$47,529,670 and the total exports to \$49,356,376 United States gold. The outlook for business for the remainder of the year seems good. Dividends paid in July were satisfactory and money is easy. Traveling men report that of late business has been increasing.

TEST OF IRON.

Consul A. A. WINSLOW reports that a commission composed of naval engineers and expert mechanics has tested the products of large iron factories in Chile and pronounced the iron of superior quality and suitable for use in the navy and for other purposes. These furnaces have a capacity of 200 tons daily, which will go far toward supplying the demand in Chile for that class of material. The works have been in operation only about six months.

NITRATE PROPAGANDA.

The new scheme adopted by the Government for the purpose of spreading among the farmers of the country the knowledge of the use and the advantages of nitrate is beginning to give very satisfactory results.

This scheme consists of placing large posters in all railroad stations and trains. These posters contain graphic information in regard to the use of nitrate, the manner of applying this valuable fertilizer, and how to obtain it from the government agencies. These posters first appeared about the beginning of August, and shortly afterwards the Propaganda Bureau began receiving thousands of letters from farmers throughout the country requesting information in regard to nitrate.



MINING IN THE DEPARTMENT OF PASTO.

One of the recent issues of "The Engineering and Mining Journal" contains an interesting report on the mining industry in the Department of Pasto, which is below quoted in full.

The Porvenir mine is owned by a native company and is on the zone of contact between the granite-syenite formation and the metamorphic schists of Hualcala Ridge. Development is going on at the present time, chiefly on the surface, and a great many veins have been discovered in the granite, on the contact, and in the metamorphic schists. Large quantities of free gold are found in the outcrops and in the decomposed zone. The average value of the ore is \$47 per ton, of which \$22 is gold. An interesting feature here is that true granite is impregnated with ore and will carry \$7 per ton. It is probable that this mine will develop into a large producer.

The Bombona mine is owned by an American company. A large plant is in course of erection and will treat the ores by an all-slime cyanide process. This plant is expected to be in running order next summer. The ores are similar to those of the Porvenir mine.

The ores of the Hualcala group are quite different from those of the Porvenir and Bombona. They carry pyrite, but are also rich in chalcopyrite. The ore is of low grade and occurs in thick lodes, one of which is 25 meters in thickness. This group is owned by an Ecuador company and is being developed.

A native company owns the Redencion mine, and a stamp mill is under erection to treat the low-grade, free-milling ores of this property. The ores are aplitic segregations from the granite. Another native company is also erecting a mill to treat the free-milling ores of the Rocio group of mines.

The Concordia mine, the most important in these districts, has been extensively developed and has opened up large bodies of free-milling quartz, which carries $1\frac{1}{2}$ to 2 ounces gold per ton. A native 50-stamp mill is on the property, but a large modern plant is in course of erection. The tailings will be treated by cyanide. This property is also owned by a native company.

The Madrona mine is owned by the same company as the Concordia and has a native stamp mill of 20 stamps. This mine is situated in the granite. The Madrona was the first vein mine worked in this Department. The Selva mine is in about the same condition as the Madrona. An American company owns the Canillera group of mines and is developing.

Outside of these there have been many claims granted and many are undergoing preliminary exploration. The yearly production of the lode mines in this Department is: Concordia, \$234,000; Socorro, \$75,000; all others, \$51,000; total, \$360,000. Gold placers are worked by negroes for a yearly production of \$240,000, making a total yearly production of \$600,000 from the Department of Pasto.

DISCOVERY OF A LARGE GOLD VEIN.

In the Department of Manizales, Republic of Colombia, there was recently discovered, in the Balcanes gold mine, at 300 meters depth, a vein 3 meters thick, which, according to experts, is the richest that has been found up to the present time in the mines exploited in that Department.



THE COSTA RICA-PANAMA BOUNDARY TREATY.

The Congress of the Republic of Costa Rica, under date of August 23 last, approved the treaty between the Republics of Costa Rica and Panama, signed *ad referendum* by the plenipotentiaries of the two countries in Washington, on March 17, 1910, for the submission of the boundary controversy between the two Republics to the arbitral decision of the Chief Justice of the Supreme Court of the United States.

NEW CODE OF CRIMINAL PROCEDURE.

"La Gaceta," the official organ of the Costa Rican Government, contains in its issue for August 21 the context in full of the new Code of Criminal Procedure, passed by the Assembly on August 1, 1910, and approved by the President of the Republic on the same date.

The Code is divided into 5 books, which are in turn subdivided into chapters and sections. There are in all 704 sections.

CUSTOMS APPRAISAL OF ELECTRICAL SUPPLIES.

A circular issued by the Department of Finance and Commerce of Costa Rica on August 19 last provides that as the present customs tariff does not specify the appraisal that should be applied to different electrical supplies that are usually imported into the country, and it being unjust to apply to all such supplies the appraisal of 16½ cents, the customs authorities shall appraise these supplies under the item of the tariff which would more approximately fit each case, taking into consideration the shape, use, raw materials, etc., of the different articles.

For instance, porcelain switches should be appraised under item 7 of the tariff, because, although having a metal cover, they are mostly made of porcelain, and, correspondingly, metal switches should be appraised under item 17.

FREE IMPORTATION OF WOODEN AND TIN BOXES.

A decree recently issued by the President of Costa Rica provides that the importation of wooden and tin boxes shall be exempt from customs duties whenever such boxes are imported exclusively for packing fruits and vegetables for export. This exemption shall be for a period of two years from the date of the publication of the decree, which is contained in "La Gaceta" of July 17 last.

**CONSTRUCTION OF WORKINGMEN'S HOUSES IN HAVANA.**

Under date of September 2, 1910, the Secretary of Agriculture, Commerce, and Labor of the Republic of Cuba issued a resolution, by authority of the law of July 18, 1910, inviting bids for the construction of 1,000 houses for workingmen in the city of Havana. These houses must be built within two years from the date of the ratification of the contracts, 500 houses to be built in the first year, and 500 in the second.

The competition will be open during 30 days from the date of the publication of this invitation in the "Diario Oficial." The bids must be submitted under sealed envelopes, addressed to the Secretary of Agriculture, Commerce, and Labor, before 12 o'clock of the last day of the competition.

THE ACADEMY OF HISTORY OF CUBA.

Under date of August 20, the President of the Republic of Cuba issued a decree creating the Academy of History of Cuba as an independent corporation and annexed to the Department of Public Instruction and Fine Arts. The object of the academy will be to investigate, secure, collect, classify, prepare, and submit to the said department, for publication, such documents and papers that might tend to enlarge the historical collections of the Republic.

The academy shall be composed of 1 president *ad honorem*, who shall be the Secretary of Public Instruction and Fine Arts; 1 president to be elected from among the regular academicians; 30 regular academicians residing in Havana; 30 corresponding academicians residing in the provinces and abroad; and 1 secretary to be selected from the regular academicians.

TRINIDAD RAILROAD.

The Cuban Executive signed on the 7th of August last a decree leasing to the Compañía Ferrocarril de Fernández é Placetás de Sur the line, properties, appurtenances, and accessories of the old Trinidad Railroad, which runs from Corral to Fernández, a distance of 30 kilo-

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SURVEYING PARTY FOR THE NEW MADEIRA-MAMORE RAILWAY FORCING THEIR WAY THROUGH THE JUNGLE IN BRAZIL



DROP CURTAIN IN THE MAGNIFICENT NATIONAL THEATRE AT SAN JOSE, COSTA RICA, PORTRAYING
COFFEE-PICKING SCENE.

meters. The lessee must build from the latter point to Placetas del Sur a branch line to connect with the trunk railroad.

The construction of the new line and of the Trinidad Railroad will begin next December, and the company proposes to complete all the work within one year and a half.

DOMINICAN REPUBLIC

FOREIGN TRADE, FIVE MONTHS OF 1910.

In an official report recently made by Commercial Agent JOHN M. TURNER, stationed at Santo Domingo, the opinion is expressed that American merchants and manufacturers may easily secure a larger share of the trade of the Republic. He specifies a few articles of possible increase. The American sales of agricultural implements amounted to \$7,030, while German sales amounted to \$20,985. The sales of American cotton goods amounted to \$389,000 and British sales amounted to \$342,000. The American sales represent about one-third of the total imports in this line, and Mr. TURNER asserts that the United States could easily get it all, as there is no prejudice against the American goods and our patterns are well liked. Of earthenware, says Mr. TURNER, the United States sold \$1,767 worth, while Germany sold \$20,114 worth. All the trade can be had by the United States. Italy supplied \$28,000 worth of hats and caps, while American sales were only \$1,470. Italy shipped \$28,000 worth of jewelry, watches, and clocks, and the United States \$7,970 worth. Germany supplied 18,000,000 pounds of rice worth \$391,546, while American sales amounted to \$9,261. Mr. TURNER believes that this country, as a large producer of rice, should control this trade, asserting that certainly we can compete in price. Instead of being a certainty, such competition is more than doubtful. Germany and England can and do lay down in the West Indies millions of dollars worth of rice from Rangoon and Saigon at prices which American producers do not care to meet. Their selling prices for the delivered article in West Indian markets are about the same as farm values in Texas. There is, however, no question that sales of commodities could be materially increased by proper attention to the Dominican market.

The agreement regarding the finances of the island carried a stipulation that no reduction should be made in the tariff unless the annual revenues from that source exceeded \$2,000,000. As the customs receipts were running to more than \$3,000,000 a year the authorities decided that revision would be safe and wise, and new schedules

were put into effect with the beginning of 1910. Some complaint was made, some doubt expressed, and a little time was required for adjustment, but the opinion of the official receiver, Mr. W. E. PULLIAM, appears to have been fully supported by results. His report of receipts for the first five months under the new schedules is as follows:

	1909.	1910.
January.....	\$382,748	\$184,656
February.....	221,813	209,772
March.....	230,412	261,629
April.....	252,412	280,353
May.....	269,636	308,304

Conditions for the current year are reported as more favorable than those of last year, and a larger trade is expected. Mr. TURNER states that German capital is going into the Republic quite freely. With the cash and commerce largely German, trade will drift into German channels.

ECUADOR

CONSTRUCTION OF A ROAD FROM LOJA TO ZAMORA.

The Board of Public Works at Quito has accepted with slight modifications the proposal submitted by the Argentine explorer, Señor TEMISTOCLES PAESE, for the construction of a road from Loja to the Oriental district of Zamora. The total length of the road will be 155 kilometers, with a normal grading of 5 per cent and with a width of 5 meters. Its cost is estimated at 40,000 sucres.

GUATEMALA

BUDGET FOR 1910-11.

The National Legislative Assembly of the Republic of Guatemala recently approved the budget for the fiscal year 1910-11, the expenses amounting to 36,948,238.56 pesos, distributed as follows:

	Pesos.
Government and Justice	4,599,684.00
Foreign Relations.....	1,009,839.20
Finance.....	1,703,216.00
Public Credit.....	22,000,000.00
Promotion.....	2,204,052.96
War.....	2,419,266.16
Public Instruction.....	2,526,015.00
Pensions.....	486,165.24
Total.....	36,948,238.56

IMPORTANT PETROLEUM CONCESSION.

The Guatemalan Executive has recently sanctioned the contract entered into between the Government and the representative of the International Light and Power Company, a corporation organized in Maine, United States, for the establishment in the Republic of the new industry of refining petroleum and manufacturing all other products derived therefrom.

This concession is in the nature of an exclusive privilege for a period of ten years from the date on which the concessionaire shall begin the works of construction of the plant and other necessary buildings for the operation of the concession.

In consideration of the privilege the International Light and Power Company binds itself to pay the Government 5 per cent of the net revenues derived from the exploitation of the concession, which percentage will be applied to the maintenance of the national public schools. All the machinery and other materials imported by the concessionaire shall be exempt from customs duties and other taxes.

PROPOSED NATIONAL BANK.

Since the 20th of July last the National Legislative Assembly has been convened in extraordinary session for the purpose of considering bills submitted to it by the Department of Finance for the purpose of solving the financial and fiscal situation of the country. The main points under discussion are the negotiation of a loan and the creation of a national bank.

**THE MESSAGE OF THE PRESIDENT.**

The Pan American Union has just received a copy of the important and comprehensive message submitted by the President of Haiti, General FRANCOIS A. SIMON, to the National Assembly on May 16th of the present year, which report contains a general statement of the situation of the Republic during the year 1909.

Speaking of the foreign relations of the country, the President says that Haiti has continued to maintain the best of relations with the other countries of the world. The arbitration convention signed at Washington on January 7, 1909, between the United States and Haiti, was duly sanctioned by the Legislative Assembly in its last session. An extradition treaty was signed with the Dominican Republic on October 11, 1909, and negotiations are under way for a similar agreement with the Republic of Cuba.

According to the message, the total value of imports during the fiscal year 1908-9 amounted to \$5,880,678.79, as against \$4,701,-160.80 in 1907-8, or an increase of \$1,179,517.99, which, the message says, was due to the slow but steady improvement in the rate of exchange, and to the confidence which the new administration has inspired throughout the country.

The value of gold and silver specie imported into the country during the year 1908-9 was \$851,762.79, as compared with \$806,996.50 in 1907-8, or an increase of \$44,776.29.

The principal articles of export were as follows: Cotton, goatskins, cowhides, cedar, mahogany, lignum vitæ, dyewoods, coffee, cacao, wax, and orange peel. The total cotton exported amounted to 6,279,300 pounds.

The above figures are for the fiscal year 1908-9, which in Haiti comprises the period from October 1, 1908, to September 30, 1909.

The imports and exports during the first three months of the next fiscal year, 1909-10—that is to say, during the months of October, November, and December, 1909—were as follows, the figures for the same period of 1908-9 being given for purposes of comparison:

	1908-9.		1909-10.	
	Paper.	American gold.	Paper.	American gold.
	<i>Gourdes.</i>		<i>Gourdes.</i>	
Imports.....	798,729.15	\$216,359.79	720,739.26	\$316,664.45
Exports.....	5,023.76	403,517.12	6,113.31	653,456.05

FINANCE.

According to the message, the money in circulation in the Republic toward the end of 1909 was as follows:

American gold.....	\$1,000,000
Silver coins.....	\$10,000
American bank notes.....	\$5,000
1 and 2 gourde notes.....	7,104,747
5-gourde notes.....	1,336,065
Nickel.....	6,000,000
Copper coins.....	225,000

The condition of the public debt on March 31, 1910, was:

Foreign debt.....	\$12,348,596.25
Internal debt.....	12,372,852.03
Interest in arrears.....	25,604.75
Various obligations.....	1,589,741.13
Total.....	26,336,794.16

The President states that there are now under operation in the Republic three railroad lines and one street railway line, and two railroads under consideration.

The work of construction on the Port au Prince and Leogane Railroad, which was begun in June, 1909, is about completed, and the line will soon be opened to the public.

The general revenues of the railroads and street railway during the year amounted to 275,934.72 gourdes, and the expenses to 210,902.59 gourdes and \$37,222.16 gold.

The present administration devoted its best attention to the promotion of agriculture and the improvement of the school system of the Republic, recognizing that the education of the people is one of the underlying principles for the progress of the Republic.

MODUS VIVENDI.

"Le Moniteur," the official paper of the Haitian Government, contains in its issue of July 2, just received, the text of the *modus vivendi* signed by representatives of Haiti and the Dominican Republic, stipulating that Dominicans traveling in Haitian territory, and reciprocally, Haitians traveling in Dominican territory, may do so without the passport required by the law of September 19, 1906. This agreement was signed at Port-au-Prince on May 20 last.



THE GUANE PALM OF CENTRAL AMERICA.

Consul J. H. WATTS makes the following report about the corkwood or guane palm of Central America:

The natives of Central America along the coast, and along the rivers leading to the coast, when they find quite a number of trees of this corkwood species, cut down all the trees found to be from 6 to 12 inches in diameter, and the trees being very light, carry them on their shoulders to the river or coast banks and pile them there to await shipment.

When the 3-masted schooner arrives, those already on the coast are carried to the shore and made into rafts tied with grapevine, those in the interior being likewise rafted down to the coast. These rafts are then towed out to the vessel in the bay and taken on board by the sailors. The wood is extremely light, 1,000 feet 8/8 inches weighing about 2,000 pounds. It is used in the United States for making life-preservers, being ground up and packed for that purpose. Just lately the Honduras Government has put an export tax of \$2 gold per thousand feet, and as the margin of profit to the shippers is very small this tax it is claimed will break up the trade entirely.



AGRICULTURAL AND PASTORAL CENSUS.

The Department of Promotion of the Republic of Mexico has resolved that an Agricultural and Pastoral Census of the Republic be taken as soon as possible, in order to gather the necessary information for the study of agricultural problems. The Director General of Agriculture has recently prepared a pamphlet regarding the manner of gathering those statistics and their importance in the agricultural question.

RAILROAD IN LOWER CALIFORNIA.

The Mexican Executive has approved a contract entered into between the Government and JAMES P. TAYLOR, representative of the Pacific-Italian Marble Company, for the construction and exploitation of a railroad line in the southern district of the Territory of Lower California, which, starting from a point on the Pacific coast called Cerritos, shall terminate at a point in the "marble zone" of Pescadero.

OPPORTUNITIES IN CHIAPAS.

Consul ALBERT W. BRICKWOOD, Jr., reports that the Pan American Railway unites the important and rich Department of Soconusco with Mexico city. In the northern part of the State the new navigation of the rivers has advanced to the departments of Palenque, Simojovel, and Pichucalco, yet two-thirds of Chiapas where are found most important towns and districts is isolated. Foreign capital is arriving to work a transformation. Chiapas offers a wide latitude for agriculture, with incomparable soils for the raising of live stock, fruits, and farm, dairy, and plantation products. Chiapas is perpetually irrigated with a network of streams which rise in the mountains in whose foothills is raised the coffee for which this State is famous. As a future possibility, in the light of the timber resources existing in Chiapas, lumber mills, furniture, and wagon factories might prove remunerative, the latter particularly suggested in view of the duties and the extensive territory the latter would supply.

PACKING HOUSE FOR GUADALAJARA.

Consul MAGILL, at Guadalajara, reports that an American corporation is constructing a packing house and a slaughterhouse in Guadalajara, for which about \$250,000 gold will be expended. The plant will supply local needs, but for the present no attempt will be made to supply foreign markets.

NEW BREWERY AT CULIACAN.

Vice-Consul PARKER, of Mazatlan, says that a brewery and ice plant is being built at Culiacan to supply the growing demands for these articles. Culiacan has a population of 20,000, and from sixteen to twenty barrels of beer are sold daily.

READY-MADE CLOTHING.

Consul CANADA, of Veracruz, mentions that the era of ready-made clothing has not yet dawned on Mexico. As the climate is tropical, the clothing must be of a kind suitable to it. If a light-weight, strong garment was put on the market at a low price, it is probable that a good trade could be built up in this line. It must be remembered, however, that ready-made clothing of cotton pays an import duty of \$1.38 cents United States currency for every 2.20 pounds.

RUBBER IN CHIAPAS.

Mr. A. W. BRICKWOOD, Jr., consul at Chiapas, reports that the year 1910 promises even a greater production of rubber than for 1909. For many years Mexico has been one of the greatest rubber producers, her exports having reached the large figure of 12,372,241 pounds per annum. An important factor in the production of rubber in Chiapas is the richness of the soil.

BREEDING AND RAISING GOATS IN SOUTHERN MEXICO.

Consul CANADA, Veracruz, reports that the breeding of goats is becoming a very important industry, as the growing demand for hides is so great that their production must be greatly increased. Waste lands have been used formerly for goat raising, but it is now being recognized that better lands can be used for this purpose and a satisfactory revenue derived.

APPEARANCE OF LOCUSTS IN YUCATAN.

Locusts have appeared in large numbers during the present season throughout Yucatán and have done much harm in the cultivated regions. Consul McGOOGAN reports that the growing corn, which is one of the principal products of Yucatan, has to a large extent been destroyed. Large quantities of corn will have to be imported because of the failure of the crop. Besides attacking the corn and other vegetation the locusts have done considerable damage to the growing plants in the henequen fields.

SPORTS IN MEXICO.

Within the past few years an interest has grown in Mexico for outdoor sports that is bound to have a marked effect the coming generation of Mexican manhood. Baseball is played extensively throughout the country, while tennis courts and golf links are not new.

Polo has been played in Mexico City. The one drawback to Mexican sports is the fact that Mexican ladies rarely care to participate in them.

NEW RAILROAD LINE.

Consul I. H. WATTS reports that work on the Zemmurray line from Veracruz to the Guatemala boundary is progressing favorably. This line is through the rich banana district and will open up lands of excellent fertility.

MEXICO CITY TO HAVE NEW DEPARTMENT.

By the direction of the President of the Republic, the first section of the Department of Fomento will be named "Agrarian or Rustic Department," and will be conducted according to the presidential decree governing the same. A new roll of employees has been created to perform the work.

A CURE FOR TETANUS.

Consul A. W. BRICKWOOD reports that tetanus (lockjaw) is cured by the juice of the American agave cactus, or century plant. The plant is a semitropical growth of a violet or mulberry color. The juice is extracted by squeezing and applied both externally and internally. The remedy must, however, be freshly prepared in every case, as were it to stand a few hours it would decompose.

MARITIME MOVEMENTS AT THE PORT OF MAZATLAN.

During the fiscal year July 1, 1909, to June 30, 1910, 544 vessels entered the harbor of Mazatlan. Of these vessels 360 were Mexican, 109 American, 37 German, 16 British, 16 Norwegian, and 6 French.

MARKET FOR MECHANICAL TOYS.

Consul-General ARNOLD SHANKLIN reports that within the past few years there has developed in Mexico City an increased interest in American manufactured toys. The season in Mexico is not confined to what we call the holiday or Christmas time, but lasts all the year around.

IMPROVEMENTS FOR ACAPULCO.

Consul MARION LETCHER in his annual report gives as the principal drawback to the development of Acapulco its lack of transportation facilities. Plans are being developed, however, for a coast railroad and a public highway, the latter to extend from Acapulco to Mexico City. Agriculture, with sesame as the principal crop, is the most important industry. Cotton, sugar cane, and rubber are also cultivated. Cattle raising, the fruit industry, and a very few manufactures completes the list of occupations. The lands are of unusual fertility, but are undeveloped, and in some cases suffer from lack of competent management.



NICARAGUA

NEW PRESIDENT OF THE REPUBLIC.

On August 28, Gen. JUAN D. ESTRADA took charge of the Government of Nicaragua as Provisional President of the Republic. General ESTRADA will issue a call for a presidential election within a reasonable time, not exceeding six months.

ARTICLES ADMITTED FREE OF DUTY.

United States Consul OLIVARES, of Managua, reports that owing to public necessities the President of the Republic has decreed that, for a period of six months, dating from September 1, the following goods shall be admitted into the country free of duty: Corn, beans, rice, lard, sugar, flour, kerosene, gasoline, candles, ordinary soap, tallow, sulphur, oils, salts, acids, and disinfectants.



PANAMA

MEETING OF LEGISLATIVE ASSEMBLY.

The Legislative Assembly of the Republic of Panama inaugurated its ordinary session on September 1 at the national capital in the presence of the President of the Republic and the diplomatic and consular corps. Señor CONSTANTINO AROSEMENA was elected President of the Legislature and Dr. CIRO URRIOLA and Señor ELIJIO OCAÑA, respectively, First and Second Vice-Presidents.

NEW ACTING PRESIDENT.

On the 14th of September the National Assembly elected Señor PABLO AROSEMENA, Señor FEDERICO BOYD, and Señor RODOLFO CHIARI, as First, Second and Third Designates, respectively. Señor PABLO AROSEMENA, as First Designate, becomes Acting President for the unexpired term of the late President OBALDIA.



PARAGUAY

EXECUTIVE MESSAGE.

The message presented to the National Congress of Paraguay at the opening of the Fortieth Parliament by E. GONZALEZ NAVERO, Vice-President and acting President of the Republic, gives a comprehensive view of conditions obtaining during 1909-10.

The Chief Executive prefaces his remarks on topics in general by stating that special attention has been devoted to maintaining unchanged the friendly relations existing with foreign countries, and at the same time effective measures have been taken to guarantee the home people a stable government.

Discussing the Pan-American Conference, the Chief Executive says:

No more timely opportunity than the sessions of the Pan-American Congress could have been given Paraguay to show that her participation in these assemblies was not a mere matter of form, but really grew out of a sincere desire for better international relations. The message, in commenting on the results aimed at by the Pan-American Congresses, notes that their true mission in the past has been in building for the future and in collecting the opinions of all the American Governments on public questions which can only be settled by united action of all concerned, thus assuring effective cooperation among the nations forming the union.

The following conventions were arranged for during the period under review: (1) A naturalization convention with the United States; (2) a treaty of extradition with Germany; (3) a convention with the Argentine Republic to simplify the serving of legal papers; (4) a treaty of arbitration with the United States. An extradition treaty with Austria-Hungary is also under consideration.

With reference to the law providing for the levying of municipal taxes, the message indicates that the revenues raised by this means will permit the construction of public works needed for the different municipalities. The revenues of the capital city have increased considerably, amounting, in 1909, to \$2,042,005, which exceeds the figures reached in 1908 by \$653,718.

The total number of pieces of mail matter handled aggregated 5,456,776, and the number of packages received by parcels post, 10,518. The number of telegraph messages transmitted during the period under review was 191,571. Postal revenues in 1909 amounted to 493,563 *pesos* paper as compared with 484,110 *pesos* in 1908. Telegraph receipts aggregated 615,682 *pesos* paper in 1909 against 462,512 *pesos* in 1908. During the year 335,458 meters of new telegraph line were opened to the public.

The Paraguay Bureau of Statistics is preparing to take the national census, which will pay special attention to data on the agricultural and pastoral subjects.

The construction of the prolongation of the Paraguay Central Railway is proceeding actively. A steel bridge has been built over the Pirapo River. This system is now being linked up with the Argentine North Eastern at Posadas. When this is accomplished there will be direct communication with Buenos Aires.

Financial conditions have greatly improved, owing to a policy of retrenchment which the present administration has steadfastly adhered to. No action has been taken under the provisions of the



NEW SEA WALL RECENTLY CONSTRUCTED AT MONTEVIDEO, URUGUAY.

Uruguay, as well as the other South American Republics, is spending millions of dollars in improving her ports. Part of the new port works at Montevideo have recently been put into use, and vessels of the deepest draft can now dock at the wharves. It has been decided to greatly extend the original plan by adding many improvements, such as life-saving and fire-extinguishing apparatus, which will bring the grand total of expenditures up to more than \$13,000,000.



THE WHARF AT ASUNCION, PARAGUAY

Paraguay is practically dependent on its waterways for means of communication and transportation. The Paraguay River is navigable for vessels of 12 feet draft from its mouth as far as Asuncion, and for smaller vessels almost its entire length of 1,800 miles

law of June 17, 1909, which authorized the executive power to negotiate a loan. The gold conversion fund in the Bank of the Republic now amounts to \$450,000.

The President recommends the passage of a law of compulsory military service. The reform of the military code is also urged as matter for investigation and consideration. A fine tribute is given in the message to the loyalty and efficiency of the armed forces of the Republic. A navy is being gradually built, but as yet its units consist mainly of coast-guard vessels and transports. A naval school was put in operation during the past year.

It has been the policy of the Government to encourage in every way possible interest in the schools, and a compulsory school law has been presented to Congress. A propaganda for the building of schools has been inaugurated and will be continued until the school population is adequately provided for.

The National Board of Education is undertaking to equip the schools of the Republic with all the furniture and fixings necessary to bring them up to date. The furniture of all the schools is to be renewed as soon as possible. Text-books are to be purchased in Europe if the prices asked are more reasonable than those of the home market. The printing of text-books in common use in the schools will likewise be contracted for with a view to supplying them to the children at cost or gratuitously to the poorer children. These measures will go into effect during the present year.

ANNUAL REPORT ON COMMERCE AND INDUSTRIES FOR 1909.

Notwithstanding the fact that the year 1909 was not favorable to commercial progress in Paraguay, the exports were in excess of the imports by almost 1,000,000 pesos. The business depression of 1908 continued until the fall of 1909, and political disturbances retarded the revival of business. Consul FERRIS reports that especial attention is being given to the raising of tobacco and cotton. There are also several railway projects under way, and the year 1910 promises to be a favorable one.

ANNUAL REPORT OF PARAGUAY CENTRAL RAILWAY.

The "Montevideo Times" furnishes a summary of the semiannual report of the directors of the Paraguay Central Railway Company, which states that the gross receipts of the company for the half year ending December 31, 1909—

were \$3,552,092 in currency, against \$3,009,361 for the corresponding period of 1908, an increase of \$542,731 in currency, or 18 per cent. The operating expenditure for 1909 was, in currency, \$1,793,412, against \$1,688,028 last year, an increase of \$105,384, or 6.2 per cent. The ratio of operating expenses was 50.55 per cent, as against 56.11 per cent for 1908. The net receipts for the half year from operation were £22,636, as against £17,271 in the corresponding period of the previous year, an increase of

£5,935, or 31 per cent. The net proceeds for the half year, after payment of interest on the prior lien debenture stock, were £12,587. The balance brought forward from the previous year was £41,497, and deducting from this amount £10,000 placed on reserve and £14,608 interest on the 5 per cent debenture stock for the year ending June 30, 1909, there remains a balance of £16,888, which, added to the above amount of £12,587, makes a total of £29,475. From this total there has to be deducted the sum of £5,740, being special administration charges in connection with the change of gauge. The negotiations which have been proceeding for enabling the company to convert the existing gauge into standard gauge, so as to make it uniform with the lines of the Argentina North Eastern and Entre Rios railways, have been brought to a successful conclusion. Under these arrangements the Argentine Government has agreed to subscribe at par for 22,000 shares of £10 each of this company and to purchase the rolling stock at present in use, which will become obsolete by the change of gauge. The company is therefore now in a position to convert the whole of its line from Asuncion to Pirapo and the extension to Encarnación into a standard gauge line and to equip the same with new rolling stock. By this change in the gauge and by the extension the railway, instead of being a local line as hitherto, will become part of a trunk line between Asuncion in Paraguay and Buenos Aires in Argentina.



DELEGATES TO THE TRANS-MISSISSIPPI COMMERCIAL CONGRESS.

The Peruvian Government has appointed Señor EDUARDO HIGGINSON, Consul-General of Peru in New York, as delegate to the Twenty-first Trans-Mississippi Commercial Congress, which will be held next November at San Antonio, Texas.

NEW EXPERIMENTAL STATIONS.

For the purpose of promoting agriculture, the Peruvian Government has recently provided for the establishment of experimental fields in private farms whenever interested farmers make the proper request to the experimental stations. Such farmers must carry on the work in the experimental fields that may be established in their lands, subject to instructions that may be given them by the respective stations.

RAILWAY NOTES.

The railroad line recently finished between Wonan and Chilete, in the Department of Cajamarca, has been opened to the public traffic.

The work of construction of the railroads from Chilete to Magdalena, from Huancayo to Anacucho, and from Lima to Huacho will be actively pushed forward by the Government, and it is expected they will be finished within a short period.

BUDGET FOR 1910-11.

The Minister of Finance has recently submitted to the Peruvian Congress the general budget bill of the Republic for 1910-11. The revenues are estimated at a total of 3,999,045 Peruvian pounds, and expenses are fixed at 3,083,283 pounds.

**PUBLIC DEBT.**

According to the latest official statistics, the state of the public debt at the end of 1909 was as follows:

IN GOLD. *

	Pesos.
National indemnity bonds and other obligations	9,745,480.28

IN SILVER.

Bonds of Salvador, administrative service, etc	5,534,847.73
Exchange at 150 per cent.....	14,618,220.42
Total debt.....	29,898,548.43

THE BUDGET FOR 1910-11.

The National Assembly of Salvador has recently passed a general budget law for 1910-11.

The revenues are estimated as follows:

	Pesos.
Import and export duties.....	6,911,732
Internal revenue	3,408,050
Total.....	10,319,782

The expenses of the Government are fixed at a total of 10,371,869.67 pesos, distributed as follows:

	Pesos.
National Assembly.....	40,980.00
President of the Republic.....	41,340.00
Department of Interior.....	1,250,463.00
Department of Promotion.....	636,800.00
Department of Public Instruction.....	714,652.00
Department of Foreign Relations.....	116,080.00
Department of Justice.....	507,192.00
Department of Beneficence.....	529,336.00
Department of Finance.....	670,256.50
Department of Public Credit.....	3,291,260.17
Department of War and Navy.....	2,573,510.00
Total.....	10,371,869.67

A comparison between the total revenues and the total expenses shows a deficit of 52,087.67 pesos.

URUGUAY

STATISTICAL REFORM.

An Executive Decree promulgated on July 1, 1910, provides for certain reforms in the collection, statement, and publication of the statistics of the import and export trade.

Statistics presented in an orderly and intelligible manner are of the greatest assistance in determining the points and directions where a country's trade can be extended and increased. The "Montevideo Times" summarizes the decree as follows:

The differences of values arising on account of increases or devolutions shall be computed on the total value of the imports and exports each year. A bulletin of the commercial movement shall be published every quarter to appear before the expiration of the succeeding quarter. The annual summary should be published not later than six months after the end of the year. With regard to the years of which the statistics are in arrears (these are 1907, 1908, and 1909), only the annual totals shall be published. In the exportation statistics, in addition to the official values (i. e., for payment of the duties), the calculations shall be made with relation to the current market values, which shall be determined by the Director-General of Customs in consultation with the Chamber of Mercantile Produce; and there shall also be clearly specified the part corresponding to transit. As regards the totals, comparisons shall be made with the two previous years. These publications shall be made without prejudice to those corresponding to the General Statistics, to which the data shall be passed as speedily as possible.

The customs authorities shall take the necessary steps to carry out this decree, and shall apply for the appointment of the permanent or temporary staff necessary for the purposes indicated. This decree became effective from the 1st instant, the date of its issue.

PORT OF MONTEVIDEO TO BE GREATLY ENLARGED.

Consul F. W. GODING reports that the port works in the harbor of Montevideo are to be greatly extended and superstructures added to the existing works. The specified improvements call for an expenditure of \$5,321,957, to which sum, according to official estimates, 20 per cent must be added for improvements unprovided for and certain works contemplated, such as sanitary measures, life-saving and fire-extinguishing apparatus, etc., aggregating \$6,386,346. All works contemplated are to be finished within a period of four years from the date of initiation. The amplifications of the present port works will bring the grand total to be expended to \$13,151,169.

LIVE STOCK OF URUGUAY IN 1908.

Consul F. W. GODING reports the live stock of Uruguay in 1908 as follows: Mules, 17,581; goats, 19,951; asses, 4,358; hogs, 180,197; horses, 556,297; sheep, 24,730,289, and cattle, 8,192,542.

AUTOMOBILES IN URUGUAY.

From 1905 up to the present time there has been a steady increase in the number of automobiles imported into Uruguay. If a strong machine with the parts most liable to wear out provided in duplicate and the lower parts protected by an apron were put on the market, American manufacturers could probably build up a good trade. The duty is 10 per cent plus 3 per cent.



VENEZUELA

EXPORT BOUNTIES REMOVED.

Consul G. A. MANNING reports that President GOMEZ has decreed the abrogation of the act providing for a bounty on certain products, issued March 9, 1910. [This act provided for a bounty] on the following articles when exported: Cane and cane products; textile materials; fruits, except bananas; oleaginous materials; rice, corn, tapioca, and products of yucca, such as starch, etc.; honey, beeswax, lard, butter, cheese, wool, beef, and fish.

REPORT ON MEAT EXPORTS.

Vice and Deputy Consul L. J. VERHOLST reports that in August an English packing house exported from Puerto Cabello the first cargo of frozen meat from Puerto Cabello to England. The hope of this company is to establish a successful export business between Venezuela and England, and as the steamers used by them are equipped with refrigerating machines they will be able to keep, besides their frozen meat, green fruits and papelon (brown sugar) in good condition for three weeks or more. An exporter at the same port shipped 75,416 pounds of papelon on the same steamer for England, which is also the first shipment of papelon made from Puerto Cabello to Europe.

PETROLEUM DEPOSITS IN VENEZUELA.

A company of Maracaibo business men who have control of some extensive oil fields in Venezuela are making an active campaign to interest foreign or domestic capital in the development of their property. The vicinity of these fields can be reached by light-draft lake or river steamers. By the terms of a contract with the Venezuelan Government, the company is given free entrance for their drills, machinery, and supplies. Two grades of oil have been found on these grounds, one thin enough to flow readily and the other very

thick. Consul R. J. TOTTEN reports that as Venezuela consumes annually about 1,000,000 gallons of kerosene, and as the location of these fields is especially favorable, the project will probably be successful.

PROJECTED CULTIVATION OF BANANAS.

Encouraged by the success of the cultivation of bananas in other localities in South America, a company of business men has a concession from the Venezuelan Government to establish a plantation on the southern shore of Lake Maracaibo. The site selected is well protected from wind and the soil is fertile. Consul R. J. TOTTEN reports that the company is endeavoring to secure a market for their products and that as soon as this is arranged work will be commenced.





SEÑOR DON PABLO AROSEMENA,
President of Panama.

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THE Director General has pleasure in announcing that two projects are under way which can not fail to have a direct favorable influence upon the development throughout the United States of interest in Pan American comity and commerce. As is well known, one of the best ways of promoting good will and trade between two countries is the exchange of visits by representative men in the public and private life of each nation. If such visitors are shown generous hospitality and particular attention upon their arrival in a foreign land, their first impressions are usually good and lasting, and they are prepared for an enjoyment of their stay and an appreciation of their new friends and surroundings.

A strong factor in promoting good understanding between Great Britain and the United States has been The Pilgrim Society of the United States, with headquarters in New York. The Japan Society and the American Asiatic Association have had a corresponding influence on the relations of the United States with Japan and the Orient. Whenever a distinguished Englishman, Japanese, or Chinese arrives in New York he is shown courtesies by these societies, which tend to shape his feelings toward the United States. Such attention generally takes the form of a banquet or luncheon, where the foreign guest has the opportunity of meeting leading men in politics, in finance, in law, in literature, in the newspaper field, and in other callings. The occasion either partakes of a welcome on arrival or a godspeed at departure.

The need of having an organization of this kind to show courtesies to representative Latin Americans who may be visiting the United States is apparent. When last summer it seemed probable that this country would be honored by visits from Marshal HERMES DA FONSECA, President-elect of Brazil, and Dr. ROQUE SÁENZ PEÑA, President-elect of Argentina, the lack of a society of this kind to show them hospitality upon their arrival in New York impressed itself upon all those who are



Photograph by William H. Roth.

THE ARGENTINE TRAINING-SHIP "PRESIDENTE SARMIENTO."

During her present trip around the world, the "Sarmiento" paused at Philadelphia and Boston where the several battleships now under construction for the Argentine Navy were inspected. Then she anchored at Washington, when on Tuesday, October 25, the Charge d' Affaires of the Argentine Republic, in the name of his Government, and Captain Fless tendered a luncheon on board to President Taft, at which were present besides the President, Philander C. Knox, Secretary of State; Beckman Winthrop, Assistant Secretary of the Navy; Robert Shaw Oliver, Assistant Secretary of War; Maj. Gen. Leonard Wood, Chief of Staff of the United States Army; Lieut. Commander Leigh C. Palmer, the President's Naval Aid; John Barrett, Director General of the Pan American Union; Señor Don Jacinto L. Villegas, Charge d' Affaires of the Argentine Republic; Admiral Domecq García, President of the Argentine Naval Commission; and Capt. Enrique G. Fless, Commander of the "Sarmiento."

interested in bringing about closer relations between the United States and her sister republics.

It is now proposed, therefore, that there be organized, with headquarters in New York City, the Pan American Society of the United States, whose object shall be (to paraphrase the purpose of The Pilgrims) "the promotion of the sentiment of brotherhood" among the American nations, and "especially the cultivation of good fellowship" between citizens of the United States and those of its sister American Republics. It has been suggested that all men interested in bringing about a better acquaintance among the peoples of Pan America should be invited to join and that its honorary members should include the Presidents of the American Republics and the ambassadors and ministers of the Latin-American countries in Washington. It is also believed that there could be no more fitting choice for the first president of the Pan American Society than ELIHU ROOT.

The other project involves the holding in Washington, some time in February, in the Hall of the Republics of the new building of the Pan American Union, a gathering of the representatives of chambers of commerce, boards of trade, general commercial organizations, and interested manufacturing, exporting, and importing firms to hear and discuss the conditions of trade exchange among the American countries. This conference will probably last one week and will be addressed by ministers and consuls of the United States who are home on leave of absence from Latin America, by ministers and consuls in this country of the Latin American countries, and by both official and private trade experts. These discussions will be along practical lines and will be illustrated and amplified by maps, charts, and photographs. The conference will have no political bearing whatever and no resolutions will be presented or discussed favoring this or that partisan policy.

The chief purpose, in short, will be to provide, under the auspices of the Pan American Union, and with the patronage of the United States and the other American Republics which compose the Union, a useful educational session and symposium, as it were, covering thoroughly the various phases and conditions of Pan American trade. It is hoped that the responsible commercial organizations of the United States and the larger manufacturing, exporting, and importing houses will respond favorably to the invitations to this conference which will be sent out early in November, and the Director General has reason to believe, from informal correspondence which he has already had, that there will be wide interest in this effort to awaken the country generally to the importance of Pan American commerce. It is believed that each representative of a commercial organization or business firm who attends this conference will receive in one week a practical education which he could not gain in any other way in many months of study or travel and that he will be able to



Photographs by Harris Ewing.

RECEPTION TO THE PRESIDENT OF THE UNITED STATES ABOARD THE ARGENTINE TRAINING SHIP "PRESIDENTE SARMIENTO" AT WASHINGTON NAVY YARD, OCTOBER 25, 1910.

Upper picture: Officers of the "Presidente Sarmiento."

Center picture: On the right of President Taft is Señora Doña Helena Hamilton de Villegas, wife of the Charge d' Affaires of the Argentine Republic at Washington; on the left, in the order named, are Señor Don Jacinto L. Villegas, Mrs. Taft, Admiral Domecq García, of the Argentine Navy, Philander C. Knox, Secretary of State of the United States, Commander Enrique G. Fliess, of the "Presidente Sarmiento," and Señor Don Francisco León de la Barra, Mexican Ambassador to the United States.

Lower picture: Midshipmen of the "Presidente Sarmiento."

return to his respective city or company and use the information acquired with great benefit to those interested.

Both of these projects have the informal indorsement of the officials of the United States State Department, of Senator ELIHU ROOT, and of Hon. HENRY WHITE, Chairman of the United States Delegation to the Pan American Conference.

THE NEW NAME, "THE PAN AMERICAN UNION."

The action of the Pan American Conference at Buenos Aires in changing the name of "The International Bureau of American Republics" to "The Pan American Union" has been favorably received on all sides. The latter term is so short and expressive that it can be carried readily in mind and correctly used. The former title was so very seldom quoted in its exact form and was so long and cumbersome that the average person would hesitate, as he endeavored to describe the institution, in his efforts to give it its actual name. The most common error was to call it "The Bureau of South American Republics"—a term which is entirely wrong. The institution is All-American, for it includes the Republics of North America as well as those of South America. In fact, a majority of the nations supporting the Pan American Union are located north of South America. Twenty-one independent Republics belong to the Union, of which 11 are located in North America or nearer to it than to South America. The term "North America" includes every country from Panama north, together with the island republics of Cuba, the Dominican Republic, and Haiti.

THE INTERNATIONAL PRISON CONGRESS.

The Pan American Union had an opportunity recently of extending hospitality to the International Prison Congress, which was held in Washington. The committee had planned to hold their meetings in the hall of the new National Museum, but as this could not be made ready in time, an appeal was made to the Union for the use of the Hall of the American Republics. Permission was granted because of the international character of this Congress and of the fact that, included among its delegates, were representatives of many Latin American countries. It was gratifying to hear the expressions of appreciation of the beautiful building of the Pan American Union which were recorded by the delegates from the foreign countries. Many of them were good enough to say that they regarded it as one of the most beautiful and significant public buildings in the world.

The Director General has received a letter from Mr. CHARLES R. HENDERSON, President of the Eighth International Prison Congress,



REPRESENTATIVES FROM LATIN-AMERICAN REPUBLICS ATTENDING THE INTERNATIONAL PRISON CONGRESS HELD IN THE PAN AMERICAN BUILDING, WASHINGTON, D. C., OCTOBER 2-8, 1910.

Gen. Demetrio del Castillo, Superintendent National Penitentiary, Havana, Cuba. Senor Dr. Don Armando Claros, Director National Penitentiary, Buenos Aires, Argentina. Sr. Dr. Don Esteban Gil-Borges, First Secretary of Venezuelan Legation, Washington, D. C.

Sr. Don Francisco de P. Borda, Minister of Colombia, Washington, D. C. Sr. Dr. Don Rafael M. Arizaga, Minister of Ecuador, Washington, D. C.

Judge R. Lancis, President Criminal Court, Havana, Cuba. Sr. Lic. Don Ismael Pizarro Suárez, Secretary Prison Board, Mexico City, Mexico. Sr. Lic. Don Guillermo Moncada, Honduran Consul-General, New York City.

in which he makes the following kind and interesting reference to the meeting of that Congress in the new building of the Pan American Union :

No building in our country could have been more appropriate for the meeting of the representatives of 47 nations from all the continents; and it proved well adapted to the needs of the Congress. We Americans were proud to entertain our foreign guests in a building so beautiful, dignified, and perfect in its appointments. More generally than ever before were the South American countries represented in our Congress, and they were delighted to find themselves constantly in the presence of architectural features which reminded them of the most attractive forms of their native lands. Your bureau has rendered to the cause of social science and of philanthropy one more service of noblest import.

THE PAN AMERICAN CONFERENCE AT BUENOS AIRES.

About the time that the editorial matter for this issue of the BULLETIN is going to press there are returning to the United States the delegates who represented it at the Pan American Conference held at Buenos Aires. While it is too soon to publish any of their impressions, it can be said that their report will be awaited and read with profound interest. As more complete details are received of the work of the Conference the opinion has grown that this international gathering was one of the most important and successful that has been held. The delegates not only of the United States but of all the countries seem to have been inspired with a desire to make the Union of American Republics a lasting organization, and to pass such resolutions and conventions at its conferences as would cause all the governments to look forward with pleasurable anticipation to future meetings. The Conference signed conventions covering patents of inventions, designs and industrial models; trademarks; copyrights; and pecuniary claims. It also drew up and signed resolutions as follows:

Modification of programme.

Celebration of the Centenary of American Republics.

Coffee Congress provided for by the Third Conference.

Reorganization of the Union of American Republics.

Submission of draft of proposed convention for the reorganization of the Union of American Republics.

Expression of thanks to Mr. ANDREW CARNEGIE.

Pan American Railway.

More rapid mail, passenger, and express steamship service between the American Republics.

Unification of consular documents, customs regulations, and the establishment of a section of commerce, customs, and statistics in the Pan American Union; commercial statistics and census.

Sanitary police.

Interchange of university professors and students.

Work of the Pan American Scientific Congress, held at Santiago, Chile, December, 1908.

Work of the Fourth Pan American Scientific Congress, held at Buenos Aires, July, 1910.

Celebration of the opening of the Panama Canal.

Future conferences.

The complete text of these resolutions and conventions are printed elsewhere in this issue of the BULLETIN.

THE RETURN OF THE ASSISTANT DIRECTOR.

When this BULLETIN is coming from the press, there will be returning to his important duties in the Pan American Union the Assistant Director, Mr. FRANCISCO J. YÁNES. Sent to the Pan American Conference in Buenos Aires as the representative of this institution, he performed his mission faithfully and creditably. On his way to Buenos Aires he made official visits to Rio de Janeiro and Montevideo, and on his return trip he stopped for special calls of courtesy at Santiago, Lima, Panama, and Caracas. Had his health and that of his wife, who accompanied him, permitted he would have visited the other Latin-American capitals. As a tribute to his ability and services the Pan American Conference gave him the title of "Assistant Director" in place of "Secretary," and made specific favorable reference to him in the resolution covering the Pan American Union. The Director General welcomes him back and congratulates him upon the success of his mission.

THE CHARGÉ D'AFFAIRES OF URUGUAY.

Dr. ALFREDO DE CASTRO, Chargé d'Affaires of Uruguay in Washington, is one of the youngest members of the diplomatic service of that country, and in spite of his youth he has previously occupied several positions of responsibility. He was born in Montevideo on December 20, 1881, and pursued his preliminary education in the section of secondary instruction of the University of Montevideo, where he graduated as Bachelor of Science and Letters. Immediately afterwards he joined the law school of the same university, crowning his studies with the degree of Doctor of Law, Jurisprudence, and Social Sciences. The first public position that he filled was that of assistant in the office of the Secretary of the Senate, from 1903 until 1908, pursuing at the same time his law studies. After graduating he was appointed by the Supreme Court of the Republic as Justice of the Peace in Montevideo, from which position he was transferred to Rio de Janeiro as First Secretary of Legation. In May, 1909, he was appointed, in addition to his duties as



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DR. ALFREDO DE CASTRO,

First Secretary and Chargé d' Affaires of Uruguay at Washington.

Secretary of the Legation, Consul-General of Uruguay in Rio de Janeiro, which positions he filled until November of the same year, when he returned to his country on official business. On February 1 of the present year he was transferred to the legation of Uruguay in the United States, and on July 15 last he qualified as chargé d'affaires.

WHERE THE BULLETIN IS PRINTED.

In this issue of the BULLETIN appears an article on the Government Printing Office which should be read by all persons who are interested in the larger phases of the practical or working side of a great government. This office is the most complete of its kind in the world, and is managed with a skill and efficiency which is commendable. One of the best illustrations of the work that it can do is the MONTHLY BULLETIN, and the editorial staff are deeply grateful to the staff of the Government Printing Office for the interest and cooperation they always show in the typographical appearance of this publication.

MORE STEAMSHIP FACILITIES ON THE PACIFIC.

The latest information from the Pacific coast points to a great improvement in the steamship service between the principal points of California, Oregon, and Washington and the points of Central and South America, including Panama. There has been such remarkable improvement in the service between New York and New Orleans, on the one hand, and Colon, on the other, that it is good news to hear that there is to be corresponding betterment of steamship facilities on the Pacific. The Pacific Mail Steamship Company is planning to make changes in its service from which there must follow a rapid development in both trade and travel, while another company, known as the California and Atlantic Steamship Company, commenced, on October 1, a new service between Panama and San Francisco, with San Pedro (Los Angeles) as a port of call, which can not fail to have a direct effect upon the business of California in its exchange of trade with the ports to the south. As all this is in line with what the Pan American Union has been laboring to achieve through a number of years, it feels especial satisfaction in seeing the improvement of the service an accomplished fact.

A NEW HONOR FOR DR. L. S. ROWE.

The Pan American Union congratulates Dr. L. S. ROWE, of the University of Pennsylvania, upon his appointment as professor in the Mexican National University. It is fitting that Doctor ROWE should receive this

recognition. There are few men in the United States better informed in regard to Latin America, and he is a scholar of exceptional training and breadth of view. He has long been an efficient member of the Pan American Committee of the United States and was chairman of the United States delegation to the Pan American Scientific Congress in Chile. He was also a member of the United States delegation to the Pan American Conference at Rio de Janeiro in 1906.

THE UNITED STATES CONSUL AT VERACRUZ, MEXICO.

WILLIAM W. CANADA, now consul at Veracruz for over a dozen years, is acquitting his post in a manner worthy of commendation. Born in the State of Indiana in 1850, Mr. CANADA attended the high and state normal schools of his native State. Later he studied law and was admitted to the bar in 1874. He soon won distinction in his chosen profession and was rewarded with the position of municipal judge, maintaining his seat on the bench for fourteen years. In 1897 he surrendered his legal practice to accept the post of consul at Veracruz, where he is now doing creditable work.

"SOUTH AMERICA'S" OPINION OF THE UNION.

"South America," a trade paper published in London, in its issue for September, 1910, makes the following appreciative reference to the Pan American Union:

A BUREAU OF INFORMATION.

That our cousins in the United States are keenly alive to the great advantages of developing commerce with the Latin Americas is shown by the existence of an important association known as the International Bureau of the American Republics. This body is maintained by all these States for the development of Pan-American commerce, and is accomplishing a great work in that direction, furnishing manufacturers and merchants with information which helps materially in increasing the export trade from the United States to South America. The bureau owes much to the energies of the Hon. JOHN BARRETT, its director, who has an intimate knowledge of the customs and business methods of Latin America, and a most useful monthly bulletin replete with authoritative facts and figures is issued in English, Spanish, Portuguese, and French. No such body, official or otherwise, exists in this country, and British houses who are casting their eyes toward the great markets of the south are often at a loss for reliable data to assist them. This is where we of South America can be of invaluable help. Our intimate knowledge of the requirements of the Latin Republics is freely at the disposal of all our subscribers.

PAN AMERICA AT THE TRANS-MISSISSIPPI CONGRESS.

One of the most prominent features of the Trans-Mississippi Congress which will be held at San Antonio, State of Texas, United States of America, November 22-25, will be a discussion of the trade relations



WILLIAM W. CANADA,
Consul of the United States of America at Veracruz, Mexico.

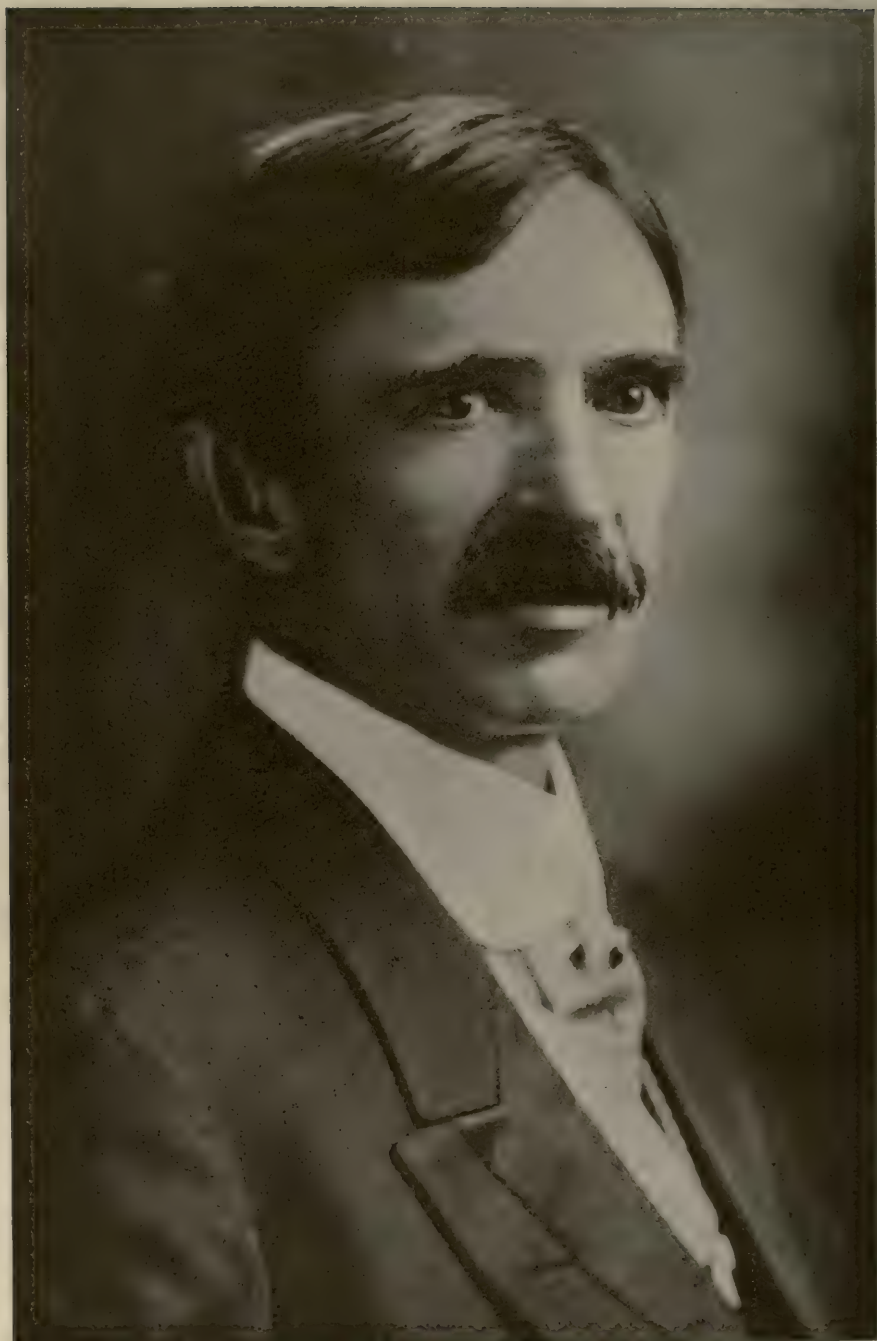
between the United States and the countries to the south of it. The Pan American Union has just received word from Col. I. T. PRYOR, the President of the Congress, that one of the principal addresses to be given at this notable gathering will be delivered by Hon. WILLIAM J. BRYAN, late Democratic candidate for President of the United States. Mr. BRYAN, it will be remembered, made an extended trip last year to all of the principal South American countries, and he will, in his speech, give his views as to the best method of building up the exchange of commerce among the American nations. Colonel PRYOR further states that it is hoped that Hon. PHILANDER T. KNOX, Secretary of State of the United States, will be present and speak upon the same subject. The Director General of the Pan American Union has been invited to deliver an address and will accept if his other engagements will permit. The former sessions of the Trans-Mississippi Congress have given much attention to Pan American trade relations and have done much good in awakening interest throughout the western section of the United States in the progress and prosperity of the other American countries.

A WASHINGTON EDITOR IN SOUTH AMERICA.

It is with especial gratification that the Pan American Union learns that Mr. THEODORE W. NOYES, one of the proprietors and editors of the Evening Star, a prominent and influential newspaper of the capital of the United States, has started upon an extensive trip around South America. He will proceed south by way of the Panama Canal and along the west coast, returning by way of Argentina, Uruguay, and Brazil. Visits of this kind by representative editors of the United States can not fail to have a direct influence upon the development of better understanding and closer friendship between North and South America. It is hoped that Mr. NOYES will record his impressions in letters to his newspaper and that what he says will be widely read.

THE UNITED STATES CONSUL AT LA GUAIRA, VENEZUELA.

The United States Consular Service is fortunate in having among its representatives ISAAC A. MANNING, the present Consul at La Guaira, Venezuela. A westerner by birth, he early became imbued with that pioneer spirit which has been such a dominant factor in the upbuilding of the Pacific coast, and it is with this same enthusiasm and spirit that Mr. MANNING entered upon his consular duties in Latin America. Born in Indiana in 1864, Mr. MANNING received his early education in the public schools of Oregon. At the age of 14 he picked up in spare moments a knowledge of telegraphy, and for several years was intrusted with the repairs of the Western Union telegraph lines over the old stage road connecting Willamette Valley and California—a stretch of



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ISAAC A. MANNING,

Consul of the United States of America at La Guaira, Venezuela.

22 miles over rocky mountains which had to be traversed on horseback frequently through deep snow. Later he was rewarded with the more responsible post of operator and station agent. His ambitious western spirit soon drew him from the "sounder and key," and Mr. MANNING entered the newspaper field, first as reporter and then as city editor of the "Daily Oregon Statesman," the second oldest newspaper in Oregon. He afterwards engaged, for several years, in the insurance business, when he was offered the position of general manager of a coffee syndicate in Nicaragua. This he efficiently occupied for eleven years. While stationed here, he served for five years as United States Consular Agent at Matagalpa, and here Mr. MANNING learned to appreciate the potentialities of Latin America and to study its opportunities. In 1904 he returned to the United States and again entered the newspaper field. Three years later, after examination, he was appointed Consul at Cartagena, Colombia, and he was transferred on February 20, 1909, to La Guaira, Venezuela, where he now is stationed. During his recent visit to the United States, Mr. MANNING delivered several addresses before large commercial organizations, pointing out the trade and commercial opportunities of South America and urging the continuance and further expansion of comity and commerce between this country and its sister republics to the south of it.

THE PANAMA "CANAL RECORD."

One of the most interesting publications which reaches the desk of the Director-General of the Pan-American Union is the "Canal Record," published weekly at Ancon, Canal Zone, on the Isthmus of Panama. It contains, in succinct form, a large amount of information which is not only most interesting, but, at the same time, useful as a matter of record and reference. It is a contemporary history of the wonderful work which is constantly being carried on to bring about the completion of the most important engineering task of modern times.

IMPRESSIONS OF MEXICO'S CELEBRATION.

Everyone who attended Mexico's celebration of her independence in September reports that it was brilliantly successful in every particular. Perhaps the two points emphasized more than others are the lavish hospitality manifested by the Mexican Government and people, and the progress and prosperity of the country which showed themselves so positively and practically that there could be no doubt of the onward movement of Mexico under the present administration of President DIAZ. The delegates of the United States and those of other countries returning through Washington also emphasized the ability and quality of the lead-

ing Mexican statesmen whom they met. They said that Mexico was indeed fortunate in having not only such a man as General DIAZ at its head, but such a group of capable and patriotic men to serve as his advisers and supporters. Although the visitors admit that they saw Mexico at its best, they were able at the same time to see enough of the masses of people and of the interior of the country to have no sympathy with the efforts of some classes of writers and men in this country to decry Mexico and encourage those persons and influences which, in calling attention to certain faults and defects in the social and governmental system of the Republic, overlook entirely the great general good that is being accomplished by the present administration. The Mexican Government and people are entitled to congratulation for the skill with which they managed their independence celebration and for the sincere hospitality and kindness which they manifested toward all visitors whether they were present in an official or private capacity. These reports, harmonizing as they do with those which come from the delegates who attended corresponding celebrations in Argentina and Chile, serve to confirm the statement so often made by the Director General of the Pan American Union that no governments or peoples in the world understand better than Latin Americans the extending of hospitality and making foreign visitors feel at home in their midst.

• THE UNITED STATES CONSUL AT GUADALAJARA, MEXICO.

SAMUEL E. MAGILL, the present Consul at Guadalajara, Mexico, is proving himself an able incumbent. Born in 1861, he obtained his early education in the public schools of his native State, Pennsylvania, and later attended Lafayette College, Easton, Pennsylvania. Upon leaving college he served as a clerk in the American consulate at Cardenas, Cuba, and thus early in life became acquainted with Latin America. Returning to the United States, he engaged in the coal and real estate business in Chicago until 1897. After examination Mr. MAGILL was appointed, July, 1897, consul at Tampico, Mexico. Ten years later he was summoned to fill the important post of consul-general at San Salvador. From this post he was transferred the following year, 1908, to Guadalajara, where he is at present stationed.

REPORTS OF THE PAN AMERICAN SANITARY CONFERENCE.

There was such a demand for the reports of the Pan American Sanitary Conference, which was held in Mexico two years ago, that the Union has made a particular effort to provide a large edition for distribution of the report of the last conference, held in San Jose, Costa Rica. Some 8,000 copies will be printed and distributed, largely through Members of Congress. Already the list of names received from the Congress-



SAMUEL E. MAGILL,
Consul of the United States of America at Guadalajara, Mexico.

men is so extensive that the edition will be soon exhausted. These reports contain a large amount of valuable information which interests the medical men of the country, not only because of the discussion of medical and sanitary questions but because it develops the international phase of medicine and sanitation.

SPANISH IN PUBLIC SCHOOLS.

The Pan American Union extends its congratulations to the officials in charge of the schools of the capital of the United States. They have taken steps for the teaching of Spanish, which can not fail to be appreciated, while it means a long step forward in the education of the younger generation to the importance of the growing relations of commerce and friendship between the United States and its sister Republics. The Pan American Union, through the *BULLETIN*, the addresses of its officials, and its correspondence, has endeavored to awaken both the collegiate institutions and the public schools of the country to the practical value of Spanish. From reports that are coming in from all parts of the country these efforts have not been entirely in vain.

"HARMONIZING THE WESTERN HEMISPHERE."

In a recent issue of the "Standard Union," one of the leading newspapers of Brooklyn, there appeared the following editorial under the caption given above, which is especially appreciated by the Pan American Union, because that paper has a reputation for being particular and thorough in its editorial expressions:

No one in touch with the work of the International Bureau of the American Republics questions its immense value in bringing the 21 independent nations of the Western Hemisphere into closer diplomatic and business relations. The institution, maintained by all, is fast acquainting the citizens of the countries interested with each other and, as was anticipated, has strengthened the bonds of friendship and greatly increased commerce between them. It is a sort of a school at which the Republics are educated about their neighbors. What the people of the United States do not know about the inhabitants and countries of Central and South America, and their ignorance of us, has long been a matter which could not be mentioned without a degree of shame. We are gaining a comprehensive idea of the southern continent, its active people, its enterprises, its possibilities and other things, while they are learning that the United States is something more than a beehive of restless, commercial humanity. This spreading knowledge in the last ten years is largely due to the Bureau at Washington.

JOHN BARRETT, who for three and a half years has been the director of this institution, has injected new life into the bureau, and it is to-day a hundred times more effective in accomplishing its task than it was five years ago. This is no reflection upon Mr. BARRETT's predecessors. Their work was well done, but lack of financial support and sympathy deprived them of the opportunity of making the bureau what it is now. The director's report shows plainly what is being done to bring the various republics closer together. It is returning very large dividends to the countries which make annual appropriations for its maintenance.



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JAY WHITE,
Consul of the United States of America at Santos, Brazil.

The BULLETIN, published monthly in four languages, is looked upon as a text-book by those who wish to inform themselves of what is going on in the Latin American Republics. Other publications, issued at irregular times, are helping along the cause of a better acquaintance. Trade between the United States and the South American countries is steadily increasing and apparently the bureau is entitled to a considerable share of the credit.

Mr. BARRETT declares that the name of the institution is too cumbersome. Also that the word bureau lacks dignity and comprehensiveness. He is right in both particulars. The Director suggests that the name be changed to "The Pan American Union," which is undoubtedly much preferable to "The International Bureau of the American Republics," a title that is too long and hard to remember.

THE UNITED STATES CONSUL AT SANTOS, BRAZIL.

JAY WHITE, the present Consul at Santos, is well fitted for the position at this important commercial port of South America, and his early training and wide experience make him a valuable man in the service. Mr. WHITE was born on the 1st day of January, 1869. Receiving his early education in the public schools of Lapeer, Michigan, he later attended the Pennsylvania Military College, and afterwards studied at Julien's in Paris, France. Returning to this country, he engaged for several years in the lumber business and then entered the banking profession. On March 30, 1899, he was called from the halls of finance and banking to the post of consular agent at Lucerne, Switzerland. Later that year he was promoted to the position of consul at Hanover, Germany. His efficient service gained for him further promotion to consul-general at Bogota in 1906, and from this post he was transferred three years later to administer the consular duties at Santos, his present post.

THE DEMAND FOR THE MONTHLY BULLETIN.

As this issue of the BULLETIN OF THE PAN AMERICAN UNION goes to press the Director General is obliged to express his sincere regret that it is absolutely impossible, within the limited funds at the disposal of the Union, to print a sufficient number of BULLETINS to meet the increasing demand for the various issues which is coming in from all parts of the world. Although it has become necessary to charge a regular subscription in order to pay for the printing of extra copies and the preparation of material, as well as for paper, illustrations, collection of extra data, etc., the call for the BULLETIN has not in the least diminished. It is the purpose of the Union to make this publication more and more an exponent of the progress of the American Republics, and the extent to which it is being quoted by magazines and newspapers, not only in the United States, but in Europe and South America, is confirmatory evidence that this policy is appreciated. It is not possible to print more than a small part of the material which is available, but an effort is made to select that which will prove both interesting and instructive.

COLOMBIAN CENTENNIAL

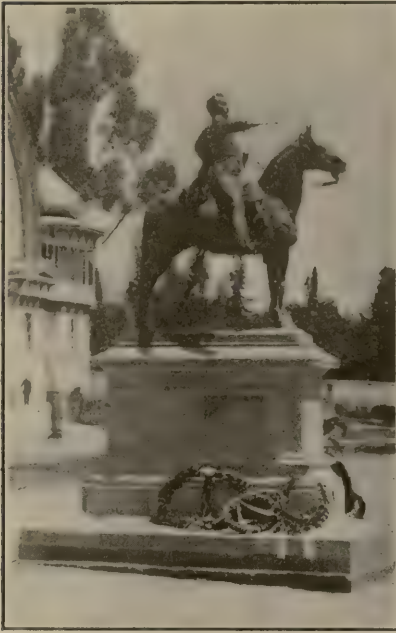
DURING the past year the Government of the Republic of Colombia has devoted special attention to the details and arrangement of the solemn festivities commemorative of the one-hundredth anniversary of the first uprising for the cause of independence, which took place in Bogota on July 20, 1810. It must, indeed, feel exceedingly gratified, as the success attained surpassed the most sanguine expectations and demonstrated the ability of the country to celebrate fittingly an event of international importance. It is but just to add that the celebration was brought to a close as replete in splendor as was its auspicious opening.

The financial situation throughout the Republic did not permit of the Government entering into elaborate arrangements for celebrating so glorious an event, and doubts were entertained as to the possible success of the festivities. It was for this reason that no invitations were extended to foreign nations to take part in the centenary. The Government had planned to celebrate this anniversary *en famille*, so to speak, with such modesty as circumstances required, but, as already stated, the success achieved greatly exceeded all expectations. Both the Government and the people did their utmost to overcome all the difficulties which were encountered in the preparation and carrying out of the necessary plans, and the greatest public enthusiasm prevailed throughout the celebration.

The centennial was not only a great outburst of patriotism, but was also a demonstration of international comity. With imposing ceremonies there were placed, at the national capitol, memorial stones in honor of the discoverers, illustrious governors, and statesmen of the colony, and tablets commemorative of the great patriots of Venezuela, Ecuador, and of the British Legion. At each of these ceremonies touching and appropriate speeches were delivered. The Spanish colony placed a bronze crown on the monument of the founder of Bogota. The French colony adorned the equestrian statue of the liberator with an iron crown, while the French Minister, M. RATAND, delivered an eloquent speech complimentary to Colombia. The Chilean Mission, on behalf of the army, offered a memorial stone in honor of Marshal SUCRE, and the legations of Venezuela and Ecuador placed crowns on the monuments of the heroes.

The unveiling of the statues of NARIÑO and of BOLIVAR constituted two of the principal features of the programme, the BOLIVAR

monument being a masterpiece of the famous sculptor, FRÉMIET. The dedication of the statue of NARIÑO was solemnized by a civic



THE NEW STATUE OF BOLÍVAR IN BOGOTÁ.

The unveiling of this monument, designed by Frémiot, was one of the principal numbers of the centennial programme. An interesting feature in connection with the ceremony was the presence of Don Ramón Blanco, the last survivor of Bolívar's soldiers.

ciations, a statue of CALDAS and two busts, one of CAMILO TORRES and the other of ANTONIO RICAURTE, all very fine works of art, made in France; also a bust of CALDAS and temporary statues of POLA and SUCRE, representing noteworthy examples of national art. These monuments contribute greatly to the beauty of the principal sections of the city.

But the work which is deserving of special mention and which, perhaps, represents the most notable feature of the event, was the arrangement of the "Parque de la Independencia" (Independence Park). This was expressly executed for the centennial celebration within the brief period of four months.

procession, which the entire population of the city turned out to witness. This event was still further enhanced by the presence of the most prominent ladies of the capital. The presentation of the statue of BOLIVAR embodied all the characteristics of a national celebration.

In addition to the two monuments above mentioned, there has been erected, through the initiative and at the expense of several asso-



THE STATUE OF NARIÑO, BOGOTÁ.

The unveiling of this artistic monument constituted one of the official ceremonies of the centenary exercises. Gen. Antonio Nariño, one of the heroes of the Independence of Colombia, is represented here in the act of giving himself up to the fury of the mob that had gathered around his prison. This statue is the work of Grever, and was presented by the municipality of Bogotá.

In this park were constructed four solid and artistic buildings for the Industrial and Fine Arts Expositions. These pavilions, by virtue of their architectural beauty, their size, and their appropriateness to the purpose for which they were erected, gave a very favorable impression of the development of architectural construction which has been reached in Colombia. The accompanying photographs show, to some extent, the picturesque and artistic beauty of this park.

The industrial and agricultural expositions have been the most gratifying features of the centennial festivities, showing, as they do, the great progress which has



THE STATUE OF CALDAS.

This magnificent sculpture by Varlet was also unveiled during the celebration. Francisco José de Caldas, patriot and martyr to the cause of Independence, was born at Popayan in 1771, and on account of his political activities was shot on October 29, 1816. The statue was presented by the Polo Club of Bogota.

been made in recent years in those branches which exercise a powerful influence in the economic development of the country. The cotton and woolen goods manufactured in Samaca, Antioquia, and Bogota; the banana-fiber fabrics from Abisinia and those of silk from the shops of the Sisters of Charity; the crockery and glassware from the Department of Caldas and the several manufactures of Bogota; the excellent samples of machinery and various kinds of mechanical works; the rubber and leather goods; the sugar from Sincerin and the interior of the Republic; the soaps and sperms; the petroleum of the Tubara wells; the marbles of Sachica;



MONUMENT TO CAMILO TORRES,
BOGOTA.

Bust of Camilo Torres, one of Colombia's foremost patriots and martyrs, presented by the Jockey Club of Bogota and dedicated during the celebration.



PAVILIONS OF THE CENTENNIAL EXHIBITION OF BOGOTA, COLOMBIA.

The industrial, agricultural, and fine-arts exhibitions were the salient features of the centennial celebration of Colombia, revealing the progress achieved during the last few years and the enormous wealth of the Republic.

and the many other products are ample indications that within a few years Colombian industries will become a most potent factor in the welfare of the country. Cattle raising, an industry to which great attention has been paid in the Republic, furnished splendid proof of its advancement by the exhibition of excellent specimens of animals of the best foreign and native breeds. And this same advancement extends to those sections devoted to the raising of draft and saddle horses, as well as to different classes of sheep, hogs, etc. This part of the exposition revealed a great increase in the wealth of the "Sabana."

Nor is it fair to pass over the splendid exhibition in the Pavilion of Fine Arts without a word of comment and commendation. The many paintings displayed there show a remarkable intimacy on the part of



AVENIDA DE COLON, BOGOTA.

This and the Avenida de la República are the most important thoroughfares of the Colombian capital. At the left is the monument of Columbus, and at the right that of Isabella the Catholic.

their authors with modern artistic processes, and further, seem to indicate the extreme popularity of the art of painting in the Colombian capital, not only as a professional career, but also as an aristocratic accomplishment, judging from the numerous beautiful paintings executed by ladies of the highest social circles. Many of the paintings exhibited here were the works of well-known masters and worthy of places in European salons.

The exposition, as a whole, was a clear manifestation of the daily accumulating energy and power of the Republic necessary for decisive strides in its material and intellectual development and for casting off its dependence on foreign countries for many important industrial branches. This notable display of skill, artistic taste, and potentiality was indeed a proper way of celebrating the centennial of Colombian political independence.

The meeting of the Congress of Students of the three countries which formerly constituted "Greater Colombia" took place at Bogota



A CORNER OF INDEPENDENCE PARK,
BOGOTA.

Work on this beautiful park showed the greatest development in connection with the centenary celebration. The park compares favorably with any in the European capitals.

dence, medicine, and engineering, at which prizes of \$10,000 each were awarded, and several prizes of \$5,000 each were presented to the authors of the best productions in sculpture and music.

There was also a great military parade at the Plaza de Boliver with over 8,000 men in line—infantry, cavalry, and artillery—after which the procession marched through the city, visiting the six monuments and statues of the great leaders and heroes of the nation.

Many other free entertainments were arranged for the people, and three theatrical companies were engaged and paid for by the Government to play during the celebration festivities.

under the auspices of the Government, and has contributed special significance to the centennial commemoration. The scientific work for this Congress can not be duly appreciated until all the details are published, but there is one result the importance of which is already evident. It is the fraternal feeling which has been awakened and which is now being developed among the distinguished representatives of the young men of these three nations, a spirit which can not fail to foster closer relations between the respective peoples. This is highly to be desired, since it will undoubtedly tend to exercise a powerful influence in the future international welfare of the country.

In addition, there were debates on questions of sociology, jurispru-



TWELFTH STREET, BOGOTA.

Photograph showing the artistic appearance of the residences of the capital.

WHERE THE BULLETIN IS PRINTED " " "

THE UNITED STATES GOVERNMENT PRINTING OFFICE.

THE preservative art of JOHANNES GUTENBERG finds its highest expression in form and volume in the output of the Government's immense printing plant at Washington, which is easily the largest and most complete establishment of its kind in the world. The development of this establishment is typical of the industrial and commercial growth of the Republic and emphasizes the spirit of inquiry and investigation that characterizes the American people, a spirit that is causing an almost fabulous volume of printing on thousands of subjects of general, special, or peculiar interest to our citizens.

The present building, first occupied ten years ago, is of magnificent proportions and a landmark of the Capital City. Aside from its practical importance it is an enduring monument to the art of typography and the part which it plays in our Government. It is 175 by 408 feet, is 7 stories high, exclusive of basement and loft, and has an actual working floor space of over 6 acres, the total floor space, including the basement, being not less than 8 acres. The building is of the Renaissance style of architecture, and while possessing artistic merit, it was constructed with a view to the greatest possible utility. It is rectangular in form, with an inner court 30 feet wide and 167 feet long. The power house, which is located at the northwest corner, completes the rectangle. It is as nearly fireproof as any building can be made. There is an elaborate treatment of the main entrance with mosaic floors, marble walls and staircases, and beautiful columns. There are numerous wide staircases, which are distributed in such a way as to facilitate the egress of the employees in case of a panic, whether from fire or other causes, making fire escapes unnecessary. The basement is used for the storage of the immense quantities of paper required for the needs of the Office, from 40 to 60 tons being used each working day. There is here also a large plate vault with a storage capacity of approximately 2,000,000 electrotype plates.

Walls of the workrooms to a height above the eye line are glazed brick, the upper portion and the ceilings being painted white. Floors, windows, stairways, and furniture are scrupulously clean. Expec-

torating or depositing refuse on the floors or on the pavements about the building are prohibited. Cuspidors of a special pattern designed to promote health and cleanliness are provided. These are washed and sterilized daily by machinery, an exhibit of this feature of shop sanitation having been awarded a medal by the last International Congress on Tuberculosis. Filtered water chilled to the desired temperature is forced to convenient stations on each floor. Individual steel lockers are provided for the clothing of employees, and luncheon is served in the workrooms for the accommodation of those who desire it.

Electricity drives 600 motors attached to as many machines, lights the building, heats workmen's tools, melts binder's glue and operator's metal, rings the bells that assemble and dismiss the forces, registers the time of receipt and dispatch of copy, runs the elevators, provides the energy for mailing machines and computing devices, and supplies the power for the transmission of copy and proof through pneumatic tubes.

Around this vast establishment there is a history much more interesting than that which generally attaches to any great productive plant—as interesting almost as that of the country itself.

The first mention of public printing found in the annals of Congress concerns the printing of laws, being a report by Congressman SYLVESTER, early in the first session of the First Congress, in which it is recommended that proposals be invited for "printing the laws and other proceedings."

December, 1818, in the first session of the Fifteenth Congress, a resolution was passed appointing a joint committee of the two Houses to "consider and report whether any further provisions of law are necessary to insure dispatch, accuracy, and neatness in the printing done for the two Houses of Congress." The committee—General WILSON, a Senator from New York and a practical printer and editor of the *True American*, and Gen. T. A. ROGERS, a Pennsylvania member of the House of Representatives—visited New York and Philadelphia and made inquiry as to the cost and the best method of having the work executed. That committee submitted a comprehensive and useful report on the subject, a sentence or two of which was the germ of the present public printing law and the immense plant which it has developed.

"The committee are of opinion," says the report, "that such an establishment, under the superintendence of a man of activity, integrity, and discretion, would be likely to produce promptitude, uniformity, accuracy, and elegance in the execution of the public printing, and they are not certain that it would not in the result, connecting with it a bindery and stationery, as already suggested, be found the most economical."



HON. SAMUEL B. DONNELLY,
Public Printer.

CAPT. HENRY T. BRIAN,
Deputy Public Printer.

MAIN ENTRANCE AND STAIRWAY.

THE NEW GOVERNMENT PRINTING OFFICE.

Largest printing plant in the world. There were used in its construction 8,000,000 bricks and 13,000,000 pounds of steel. Mosaic tile floors, 15,000 square feet; wood-block floors, 210,000 square feet; cement floors, 300,000 square feet. Dimensions of building, 408 by 175 feet.

Photographs by Harris-Ewing.



OFFICE OF PURCHASING AGENT.
 SUPERINTENDENT OF WORK AND ASSISTANTS. POST-OFFICE MONEY-ORDER PRESSES.
 PART OF THE JOB DIVISION. EMBOSSING MACHINERY.
 SUPERINTENDENT OF DOCUMENTS.

After many years of public printing by contract (a system, by the way, which was much discredited in its day) the Government established its own printing office, and in 1861 became the owner of the Government Printing Office, under the act of June 23, 1860, purchasing from CORNELIUS WENDELL, who had established a large plant on the site now occupied by what is known as the "old building" of the Printing Office.

From this modest establishment of 1861 (although considered the greatest of its kind in that day) has grown the perfected plant of 1910, the former costing about \$150,000 and the latter representing nearly \$5,000,000.

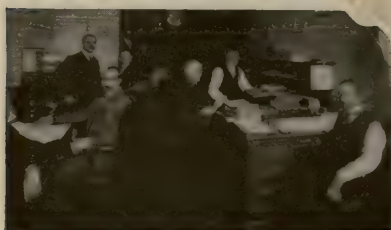
Consulting the Report of the Congressional Printer (that was the official title of the head of the Office at that time) submitted to Congress in December, 1867, when the Office had advanced greatly over its 1861 status, it is seen that the number of employees totaled about 975, and that the pay roll averaged about \$30,000 per month, the actual total for the year being \$364,680.28. The salaries in the office of the Congressional Printer were \$13,769.43. In that year improvements and repairs to the building cost about \$13,000; machinery and repairs to same, \$30,000; tools, etc., including about \$10,000 worth of type, \$19,000; ink and other sundry supplies, \$20,000; paper, \$635,106.

Turning from this old document, which consisted of a scant 40 pages, to the Report of the Public Printer for the fiscal year ended June 30, 1909, a book of 500 pages, the working force is found to aggregate almost 4,000 employees (a report for September 9, 1910, showing a total of 3,928 employees, operating 45 sections), while a recapitulated statement furnishes this data of expenditures for one year:

Printing for United States Supreme Court during fiscal year.....	\$5, 700. 73
Night messengers, deficiency act March 4, 1909.....	900. 00
Labor during fiscal year.....	4, 021, 133. 04
Material and supplies during fiscal year.....	576, 750. 41
Lithographing and engraving during fiscal year.....	126, 943. 32
Paper during fiscal year.....	1, 013, 924. 88
Salaries during fiscal year.....	88, 090. 37
Leaves of absence during fiscal year.....	342, 365. 70
Account of transfers of appropriations during fiscal year.....	51, 980. 01
Total.....	6, 227, 788. 46

In the same report it is shown that the cost of machinery in use is \$2,179,539.27. Among the interesting details of this machinery equipment will be found 84 Mergenthalers and 162 Lanston monotype keyboards and 124 casters.

In considering the kind of work handled here one naturally first thinks of the Congressional Record. This publication is what its



PRIVATE SECRETARY AND STAFF.
 CORNER IN DOCUMENTS DIVISION. OFFICERS IN CHARGE OF DOCUMENT COMPOSITION.
 OFFICE OF FOREMAN OF PRESS WORK TIMEKEEPING SECTION.
 CASHIER AND PAYMASTER



OFFICE OF ASSISTANT FOREMAN OF PRINTING.
A ROW OF CUTWORK AND COLOR PRESSES.
BOOK GATHERING AND COLLATING MACHINERY.
HAND COMPOSITION SECTION.

name implies—a word-for-word record of what takes place officially in the American Congress. Sometimes when a day's session of Congress is short, 2 "signatures," or 32 pages, will tell the story, while at other times, when history is making "on the Hill" and words by the million being put in circulation by the lawmakers, more than fifteen times that number of pages are required to give the country a correct idea of what is taking place in Congress. About 30,000 copies of the Congressional Record are printed for each day's session of Congress. The "copy" reaches the Office from the Capitol between 7 and 11 o'clock in the evening (except when night sessions are held, when it necessarily arrives much later), and the publication is distributed to Congress and the country the following morning.

Next in importance of the work of this Office is that of bills. These are entirely the product of the linotype and monotype machines. The bill printing would make a long story in itself, and while time and space forbid its elaboration, it may be said that it is the greatest "hurry work" performed in a great establishment. No place in the world has as complete an equipment for doing this class of work; nowhere could it be done so quickly and so economically. It is also done in a far better manner than like work is ever done elsewhere, even with the limited time of production.

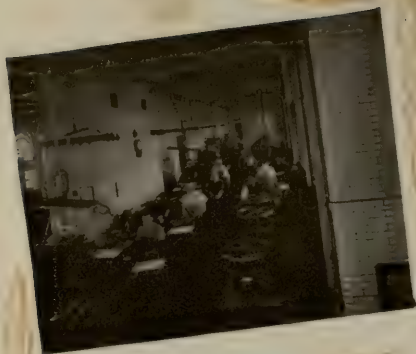
The job section is in itself a great plant and one of the most important divisions in the Office. Its output includes the job printing for the Executive Departments and Congress, and also much of the difficult tabular work and other jobs which are known in the vernacular of typography as "objectionable." Here are produced specifications and proposals for all kinds of supplies for the various departments of the Government, manifolded books, ledgers, account books, pamphlets of all sizes and descriptions, index cards, registry bills and receipts, pension vouchers by the millions, all kinds of blanks for the Isthmian Canal, envelopes, letter and note heads, franks for seed and other congressional privileges, and circulars and letters in great number—in fact, a product infinite in variety and measured by the ton in amount.

The Government Printing Office has two press rooms—book and job—these comprising about 130 presses, and the place and its equipment is the wonder of all. There is not a belt or pulley in sight, each press being driven by an individual electric motor. Nearly all of the large presses have automatic feeder attachments. Such is the capacity of the book press room that it is possible to put on the press at one time in the neighborhood of 1,500 octavo pages and furnish printed copies in one hour.

There are three rotary presses, each of which is capable at one impression of printing, folding, and slitting, in 16-page sections, 64



SANITARY SECTION AND EMERGENCY HOSPITAL.
 BOOKKEEPING SECTION. PROOF READING SECTION.
 EDITORIAL SECTION. JACKET WRITERS.
 COMPUTING SECTION.



STEREOTYPE MOLDING SECTION.

DOCUMENT COMPOSING SECTION.

JOB PRINTING DIVISION.

PLATE FINISHING SECTION

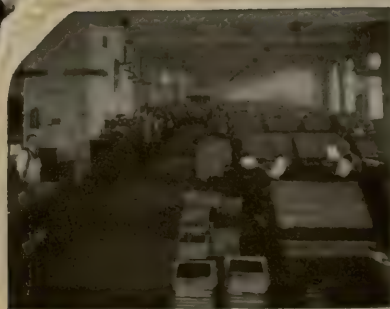
ELECTROTYPE MOLDING SECTION

octavo pages, a day's capacity of each being about 100,000 copies. Among the many mechanical wonders here is the "speech press" (so-called because it is used in printing in pamphlet form for general circulation the speeches delivered by Members and Senators on the floors of Congress), which will print and staple 60,000 copies of 32-page pamphlets in one day. Another mechanical marvel here is the "card press," said to be the only one of its kind ever built, and having no duplicate in the world. It is used in printing various kinds of cards, including those used by the Weather Bureau and all cards used by the Post-Office Department with the exception of the postal cards. Its output is 500,000 cut cards a day, printed on both sides.

The portion of the plant devoted to binding is commensurate with other portions of the establishment, the employees numbering about one-fourth the total and the equipment being of the very best, while the methods in vogue are based on the most correct, artistic, and business principles. Books are bound for the most part in ordinary board and common cloth, but much of the binding is high class, ornate, and artistic, consuming enormous quantities of fine leather and thousands of dollars worth of gold leaf.

After the foregoing description of the capacity and equipment of the establishment let us turn briefly to the magnitude of some of the works of the Office. Possibly the largest single work ever attempted in the printing business was the enormous Rebellion Record, a product of the Government Printing Office covering years of time, the work being turned out by this Office at such periods as copy could be furnished by the War and Navy Departments. It covers the entire record of the War of the Rebellion—on both sides. Another example was the voluminous report of the Industrial Commission, whose thousands of pages embrace almost every subject of interest to the industrial world.

In the case of the *United States v. Standard Oil Company*, 21 volumes were covered by testimony, briefs, etc., comprising more than 12,000 octavo pages, more than 100 half tones and lithographs, and many intricate tabular pages, a number of which were printed in two colors. It was turned out in the ordinary course of business, without interfering with the current work of the Office, as is also the case of the other great publications named. A document for the Immigration Commission, now in the Office, will reach something like 25 volumes, and will probably contain more tabular matter than ever before appeared in one publication—unless one considered the census reports as a single publication. Another great volume of work executed by the Printery is that for the Department of Agriculture, whose bulletins, reports, and various other publications have increased immensely in the last few years.



OFFICE OF CHIEF OF PROOF SECTION.
LINOTYPE MACHINES.

MONOTYPE CASTERS.
MONOTYPE KEYBOARDS.
HAND COMPOSITION SECTION.



A LINE OF TWO-REVOLUTION PRESSES.

PRESS FOR RAPID PRINTING OF SPEECHES.

JOB PRESS SECTION.

FOLDING MACHINES.

BILL AND DOCUMENT PRESSES.

The "Daily Consular and Trade Reports" has a wide circulation and much commercial influence, but no subscription department. The information appearing in the publication consists of salient features of value to the business interests of the nation and is gleaned from reports of chargés, consuls, and commercial agents throughout the world. The matter is carefully edited by experts in the Department of Commerce and Labor, and is accepted as a reliable and safe guide by the nation's traders seeking an outlet for their wares in foreign markets.

Since January 1, 1910, upward of 25,000,000 copies of speeches of Senators and Members have been printed, a harbinger of the appeal to the "will of the people" which will have been made and the result declared before this number of the BULLETIN is in the hands of its readers.

Contrary to general belief, the Government Printing Office is to some extent a competitive establishment. An illustration of this is embodied in what is known as the money-order department of the Office. These money-order blanks, totaling each year more than 500,000 books of 200 forms each, had been given out to private parties under competitive bids for many years, but in December, 1907, the Public Printer made a bid on this work, receiving the contract at that time for all work of that class, his bid being considerably lower than that of any reputable commercial printer. The section where this work is done is one of the most wonderful in a wonderful establishment. There are 23 employees at this writing and all are producing a profit for the Government. The presswork is done by specially built presses, and the paper used is what is known as special safety bond paper, watermarked "U. S. M. O.," and manufactured expressly for this purpose.

Another case in point is the postal-card section, located in what is known as the old building. This section supplies the enormous amount of postal cards used by the American people. Here, too, are used specially built machines. About 175,000,000 cards each month is the capacity of the equipment.

A graphic view of the growth of government printing is furnished by a statement of the appropriations made by the Congress for the Government Printing Office and for public printing and binding during the past thirty-five years, where it will be seen that the appropriation for 1876 was \$1,683,125.26, while that for 1910 was \$5,689,088.

The increase in buildings, material, employees, and expenditures, great as they are, have not kept up proportionately with the wonderful output of the establishment. This increase of output can be traced to many causes, the two principal of which are improved machinery and the applications of correct business ideas and methods.



OFFICE OF PAMPHLET BINDING SECTION,
STITCHING AND TRIMMING.
COVERING.
HAND FOLDING SECTION.



FINISHING SECTION
PAPER RULING AND HAND SEWING

CASING AND PRESSING,
BOOK SEWING MACHINERY.
FORWARDING SECTION.

An excellent innovation is the establishment of an emergency hospital room, this being under the care of the medical director of the establishment. It has proven of great service to those employed in the Office, and its establishment and maintenance was one of the wisest things of the Printery's latter-day development.

After one has read of the magnitude of this establishment and its great facility for doing all kinds of work it would not be out of place to say how quickly such work can sometimes be done, and here is a striking example of that.

"A few days since," said an official of the institution, "there was set, read, corrected, revised, imposed, printed, bound, and placed on board a vessel at New York City about to sail for Europe, to be used before The Hague Tribunal, a book of 475 pages, all in the French language, the copy for which was received at the Government Printing Office just forty-eight hours before the completed book was placed on the steamer. The volume was of a confidential nature, its contents to be used in a case between this country and Brazil."

The administrative forces are organized on common-sense business principles. Headed by the Public Printer (the chief executive), authority and responsibility pass logically and systematically to his deputy, a superintendent of operations, three general foremen (of printing, of presswork, and of binding), and foremen and assistants of divisions and sections. So perfect is this vast industrial machine that the multifarious elements of its wondrous whole work in perfect unity and harmony to accomplish more remarkable results than is to be found elsewhere in the printing business of the world.

In 1894 an executive order of President CLEVELAND placed the establishment under the provisions of the civil-service law. The result has been an improvement of the service in its every detail, insuring measurable permanency of employment for faithful and efficient workmen, a higher standard of competency in the crafts, and the elimination of careless and ineffective operatives who may have depended more upon "influence" than upon merit.

The skilled workmen are, with few exceptions, members of the unions of their crafts. No effort is made by them to impose conditions as to hours, wages, shop regulations, etc., these matters being subject to legislation by Congress.

Not all printed matter is of an official character. The following titles of documents and papers, taken at random, indicate the diversity of thought, educational value, and popular interest of many government publications:

Abnormal man.

Aerial navigation.

College-bred negro.

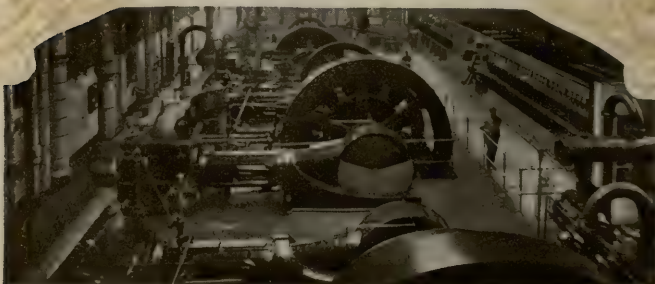
Development of mechanical composition
in printing.

Diamonds and their bearing on future of
Brazil.

Disasters in mines.

Educational system of Ireland.

Efficiency of various coals.



SECOND FLOOR MAIN STAIRWAY,
STABLES.
PORTION OF ELECTRIC POWER PLANT
ROLL PAPER STOREROOM

Exact formula for mutual inductance of coaxial solenoids.	Partisan humor.
Great Alpine tunnels.	Primer on explosives for coal miners.
Growth of industrial art.	Primitive man.
Hand and machine labor.	Recent studies in gravitation.
How maps are made.	Road building with convict labor.
Industrial hygiene.	San Francisco earthquake and fire.
Invention of the steamboat.	Sewage pollution in metropolitan area near New York City.
Irrigation in Egypt.	Trade and technical education.
Jim Crow cars.	Tuberculosis in penal institutions.
Machine-made lace industry in Europe.	Utilization of Niagara.
Marienfelde-Zossen high-speed electric railway trials.	Wages in United States and Europe.
	Wireless telephony.

It is a melancholy thought that the product of the brain and hand of writers, editors, and craftsmen should have an existence so ephemeral. Of the many millions of books that have issued from the government press in the last two decades an infinitesimal number are extant to-day—they are gone into the eternal forgetfulness of all things material. The recorded research of naturalist and scientist, the philosophy of sage and statesman, the creations of politician and poet, after a fitful day upon the literary stage, if not committed to the flames, are consigned to the waste basket or rubbish heap, thence back to the paper mill to be rolled into other sheets for the printing of the thoughts of other minds, which in turn shall have a like fugitive existence and pass from view.



PETROLEUM IN THE AMERICAS^a

"The rock poured me out rivers of oil" (Job XXIX : 6 * * *).

PETROLEUM is as old as the hills. When the earth was formed nature provided this oil, and in the crude state primitive man adapted it to many useful purposes, such as anointing, burning as fuel, and illumination, and also as an oblation in religious ceremonies; but the systematic refining of the product from its very inception is strictly an American industry.

The name petroleum, meaning "oil from the rock," was familiar to the Greeks, Romans, and Persians from the dawn of their history. HERODOTUS wrote of the Springs of Xante, from which this oil was gathered by dipping myrtle branches on the surface of the water in 500 B. C., and it was well known at that time that asphaltum, petroleum, naphtha, and maltha were all various forms of the same substance, collectively classified as bitumen. Maltha, more commonly known as pitch, was the indestructible cement of history, used in the construction of the Temple of Nineveh and the Tower of Babel; and there is little doubt that it was universally employed for similar purposes since the day when man first conceived the idea of building.

The maltha-lined cisterns found in Egypt and at Petræa, although of unknown antiquity, are still in a perfect state of preservation and fit for practical use. It is also a well-established fact that in the preparation of material for embalming and encaustic painting in Egypt and Mexico maltha formed the principal part.

Many theories have been advanced as to how bitumen has been produced, but no general chemical formula can be given for the occurrence of the several curious forms of the product. There is no doubt, however, that bitumen represents a substance that is obtained from petroleum, found in its liquid state in the containing rocks, and by the process of nature's laboratory has been gradually converted into its more solid form. This process may be described as evaporation. As the oil seeps to the surface, generally by its own gaseous pressure, the natural gases, spirituous and light oils are evaporated by the sun, and the residues, asphaltum and maltha, formed. Indications of the presence of petroleum are frequently found on the surface in the form of bitumen, but there is no fixed rule, and recent discoveries seem to upset the theory that oil can only be found under certain conditions.

^a By Russell Hastings Millward.



Courtesy of the Sunset Magazine.

THE LAKEVIEW GUSHER, SAN JOAQUIN VALLEY, CALIFORNIA.

When two months and a half had passed the Lakeview well had produced 3,500,000 barrels of oil, and its flow had increased to 60,000 barrels per day.

Wells have been sunk and oil found along the coast of California, where the operations have even extended for some distance into the sea. In a variety of climates and from the sea level up through the lofty ranges of the Andes has this remarkable "light of the world" been secured.

Petroleum, also known as mineral oil, crude oil, and stone oil, may be described as a liquid form of bitumen, found seeping from the crevices of rocks and floating about on the surface of water. Its color varies from a light straw, through amber, red, and brown, to a dark green and black. It is a mixture of hydrocarbons, or compounds of hydrogen and carbon, varying considerably, according to the locality in which it is found, in both composition and consistency, and of two distinct varieties, asphalt base and paraffin base, with many constituents.

The more volatile and inflammable portions of the raw product are separated by refining, each constituent being taken off and collected separately by gradually raising the temperature of the oil and passing the consequent vapors or gases through a series of condensers. The products from the paraffin bases are usually taken off as follows: Gasolines and naphthas, kerosene or standard white, as it is now known, other illuminating oils, light and heavy lubricating oils, paraffin, and greases of various descriptions. The percentage of each product recovered from the crude varies according to the character of the crude. A fair average of Pennsylvania crude oil ran as follows: Gasoline, $1\frac{1}{2}$ per cent; naphthas, 14 per cent; kerosene, 55 per cent; lubricating oils, $17\frac{1}{2}$ per cent; paraffin, 2 per cent; and residue of pitch, etc., 10 per cent. Many varieties of petroleum require special treatment in order to eliminate sulphur and other objectionable elements. From the asphalt-base petroleum is derived a residuum employed in the manufacture of insulating, waterproofing, and roofing materials. A residuum known as "coke" is also used as fuel and in the manufacture of carbons for arc lights and electric batteries.

Along the banks of a stream in Pennsylvania, now known under the prosaic title of Oil Creek, the Seneca Indian once dipped his blanket in most romantic fashion as he tried in vain to transfer the brilliant and variegated colors he discovered on the surface of the little pools of petroleum. Disappointed because he could not at once convert his attractive find into a satisfactory dye material, the red man found other purposes for which the oil could be employed. The blanket was carefully squeezed and the oily substance recovered. Rude pits were dug, lined with rough-hewn timbers, and the oil was stored away for future use. Thus began the first known practical conservation of petroleum in America. Many of these old Indian pits are still found in an excellent condition, the timbers being practically as sound as the day when cut from the forest.

It was not long, however, before the white man began to realize the value of this remarkable discovery, and enterprising pioneers began to dig pits similar to those of the Indian and to gather the oil, which for many years was bottled and, under the names of "Seneca Oil," "Indian Oil," and "Snake Oil," sold extensively as a sure cure for all the aches and pains to which man is heir. It was universally accepted as a medicament, but with little curiosity as to how great a quantity of the wonderful curative could be secured or whence it came.

As early as 1790, the manufacture of salt became an important industry in the United States, and for the purpose numberless brine



Courtesy of Sunset Magazine.

WHERE OIL IS LOADED INTO TANK CARS AT THE END OF PIPE LINES.

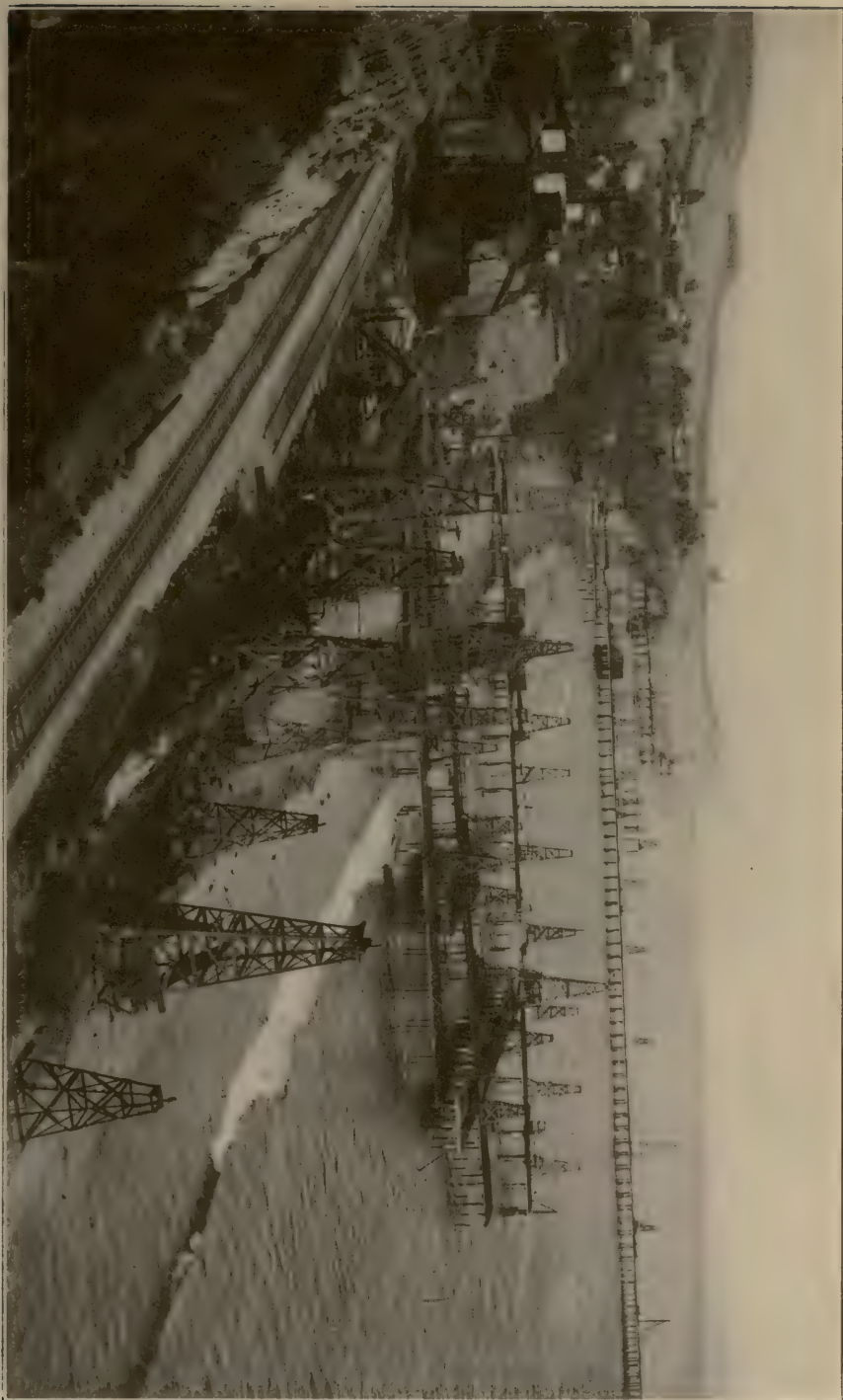
wells were sunk throughout the country, especially along the western slope of the Allegheny Mountains, where the brine was found in great abundance, collected, and evaporated into salt. Many of these wells had to be abandoned on account of their producing uncontrollable quantities of petroleum, then considered a most undesirable element. A notable incident of this kind occurred at Little Renox Creek, near Burkesville, Kentucky, in 1829, when an attempt made to sink a well and secure what was supposed to be an unlimited supply of brine resulted in the striking of a mammoth oil gusher. Consternation and disappointment spread among the owners of the well as they witnessed the great quantities of oil flowing rapidly beyond the creek and into the Cumberland River, where it finally caught fire

and burned for a distance of over fifty miles. When the fire was extinguished the oil flowed on as rapidly as before, and, with the exception of a small quantity which was later recovered, bottled, and sold under the name of "American Medicinal Oil," the product was wasted.

In 1846 Dr. ABRAHAM GESNER discovered a method of extracting an excellent grade of illuminating oil from coal, and in 1854 he patented a successful illuminant, "kerosene," commonly known as "coal-oil." The improvement was so great over the animal and vegetable oils then in use, the objectionable odor and smoke being eliminated, that they were gradually set aside, and in order to meet an enormous and ever-increasing demand for the product, it became necessary to establish factories throughout the country for the extraction of this popular illuminating oil from coal. Altogether there were over 60 of these establishments in operation at one time, and the price of kerosene advanced rapidly until 1857, when it sold as high as \$2 a gallon. The industry was short lived, however, for upon the discovery of petroleum in sufficient quantities to effect a competition as a basis from which illuminating oils could be manufactured, these kerosene factories were converted into refineries of crude oil in order to prevent their total loss.

The great demand for kerosene and its consequent high price were the cause of attracting the world-wide attention of chemists and scientific authorities, and repeated attempts were made to discover the means of producing at a lower cost some other satisfactory illuminant from coal or petroleum. Researches in this line were continuous and untiring until early in 1855, when a complete and invaluable analysis of petroleum taken from an "oil spring" on Oil Creek, near Titusville, Pennsylvania, was made by the distinguished chemist, Prof. BENJAMIN SILLIMAN, Jr., who stated, in part, as follows:

It is understood and represented that this product exists in great abundance on the property; that it can be gathered wherever a well is sunk, over a great number of acres, and that it is unfailing in its yield from year to year. The question naturally arises, Of what value is it in the arts and for what uses can it be employed? The crude oil was tried as a means of illumination. For the purpose a weighed quantity was decomposed by passing it through a wrought-iron retort filled with carbon and ignited to redness. It produced nearly pure carburetted hydrogen gas, the most highly illuminating of all carbon gases. In fact, the oil may be regarded as chemically identical with illuminating gas in a liquid form. It burned with an intense flame. The light from the rectified naphtha is pure and white, without odor, and the rate of consumption less than half that of camphene or rosin oil. Compared with gas, the rock oil gave more light than any burner, except the costly Argand, consuming 2 feet of gas per hour. These photometric experiments have given the oil a much higher value as an illuminator than I had dared to hope. As this oil does not gum or become acid or rancid by exposure, it possesses in that, as well as in its wonderful resistance to extreme cold, important qualities for a lubricator. It is worthy of note that my experiments prove that nearly the whole of the raw product may be manufactured without waste, solely by one of the most simple of all chemical processes.



(courtesy of the Sunset Magazine.

OIL WELLS OF THE SEA AT SUMMERLAND, NEAR SANTA BARBARA, CALIFORNIA.

The manner of driving or sinking an oil well is simpler than is generally imagined. A steel drill, weighing anywhere from 1,000 to 3,000 pounds, and measuring about 30 feet in length, is selected for the purpose. This is fastened to an adjustable line and connected with a heavy arm or beam, driven by an engine which continually raises and releases the arm and permits the drill to fall with great force into the hole. With each drop, and by its own weight, the drill literally crushes and pulverizes the rock into sand, which is removed with a "sand pump" from time to time as it accumulates in the boring. As the work progresses and the hole deepens the adjustable line is lengthened and the drill lowered as required.



Courtesy of Sunset Magazine.

OIL TRAIN HEADED FOR THE WORLD'S MARKET.

After drilling to depths varying from 100 to 2,000 feet, and when a crevice is struck in the rock, the oil is frequently brought to the surface by the force of its own pressure; but it often becomes necessary, in case the flow of oil is not considered sufficient, to insert a charge of explosive at the bottom of the boring, "shoot" or blast the well, and thus increase the supply. After the drilling and blasting are completed, the well is then cased with iron piping, known as a "lining," and a pump inserted.

In the old days each well was pumped separately, but the industry is now conducted upon such an economic and scientific basis that the wells are pumped in groups by a veritable network of connecting rods, extending over the fields and driven by an engine in a centralized

station. In many localities these oil wells produce natural gas, and even this is frequently utilized in driving the engines in the several pumping stations. Thus an oil field, in many cases, can be literally said to be self-productive.

In some districts the oil fields have been practically honeycombed with wells and the production of petroleum greatly reduced or scattered by continual pumping. As there is no way in which the extent of the production may be determined and as the districts are sometimes pumped dry, it is necessary for an oil producer to consider himself a party to a common pool of the product and to drill wells as



FIRE AT OIL GUSHER, DOS BOCAS, MEXICO.

This remarkable well caught fire and burned for 57 days, consuming an average of 500,000 barrels of oil a day.

rapidly and pump as much oil as possible. Wells are first drilled near the neighbor's line and gradually extended to the center of the field. In this manner a neighbor's supply is drawn on first and the remainder of the field held for reserve.

The Pennsylvania Rock Oil Company, the first organized for the purpose of exploiting petroleum, was incorporated under the laws of New York on December 30, 1854, and reorganized under the laws of Pennsylvania on September 20, 1855. Little was done, however, until December 30, 1857, when the company leased its holdings to a number of its stockholders, including GEORGE H. BISSELL, who in 1856 first conceived the idea of drilling an artesian well for petroleum.

On March 23, 1858, a new company was accordingly formed for this purpose, known as the Seneca Oil Company, and a contract given to Col. EDWIN L. DRAKE to sink an artesian well in the vicinity of Titusville, Pennsylvania. The capital actually invested at this time amounted to a little more than \$1,000, while to-day over \$1,000,000,000 represents the extent of the industry in the United States alone. In December, 1857, the first shipment of 12 barrels of crude oil to New York marked the opening chapter of an industry which has since assumed gigantic proportions.

The first systematic drilling for petroleum was made near Titusville, in May, 1859, in one of the old, rudely-timbered pits, and the work progressed slowly until quicksand was encountered in such quantities that it was found necessary to drive an iron casing through the sand in order to again reach a rock formation suitable for drilling. With difficulty this casing, the first of its kind ever used, and an original conception of Colonel DRAKE, was driven for 36 feet to bed rock and the drilling then continued until August 28, 1859, when, just as the day's work was about completed, the drill struck a crevice and dropped 6 inches. Little attention was paid to the incident until next day when, upon careful examination, it was discovered that a true crevice had been struck 69 feet from the surface and a constant flow of petroleum brought in. "I have tapped the mine," was Colonel DRAKE's quaint way of wording the report of his remarkable achievement, the anniversary of which is annually celebrated at Titusville.

The advent of petroleum was now looked upon with as much importance as that of steam or electricity, and acted as the signal for a great rush for the oil fields, which were shortly to become the scene of a mad speculation, the parallel of which has seldom been known in the industrial history of the world.

As the enterprise grew many complex problems arose from time to time, but they have all been gradually but effectually solved and the industry placed upon a conservative and economic basis.

The total flow of oil in the United States for the year 1859, the first of which any official record has been kept, amounted to only 2,000 barrels. For the year 1909 the production as estimated by David T. Day, of the United States Geological Survey, amounted to about 178,000,000 barrels, which, if placed in a single body, would be sufficient to float a gigantic fleet of 935 Dreadnought battle ships of the new 26,000-ton *Arkansas* type of the United States Navy.

Gradually the oil derrick wended its way from a northeasterly to southwesterly direction, and the petroleum industry was extended over a vast territory. After the opening up of the Pennsylvania fields in 1859 New York, Ohio, California, and West Virginia were

extensively explored and became producers in 1876; Kentucky and Tennessee in 1883; Colorado in 1887; Texas, Indiana, Illinois, Kansas, and Missouri in 1889; Oklahoma in 1891; Wyoming in 1894; Michigan in 1900; Louisiana in 1902; and Utah in 1907.

Through the States of Pennsylvania, New York, Ohio, West Virginia, Kentucky, and Tennessee, from 1859 to 1883, over 35,000 wells were driven, with the remarkable result that in the entire twenty-four years of exploration but one in every five were "dusters" or "dry holes" and proved unproductive.

During the year 1908 there were 16,909 wells sunk in the United States, of which but 3,214 were dry.



THE PACIFIC TERMINAL STATION OF OIL PIPE LINE.

Steamship Santa Maria discharging 48,000 barrels crude oil at Balboa, Panama, January 1, 1908. This line was installed in December, 1903, across the Isthmus of Panama, thus overcoming the necessity of Pacific Coast oil making the trip around the horn to Atlantic Coast customers.

Gushers of a remarkable character have been brought in at Spindle Top, Goose Creek, and Markham, Texas, and at Anse la Butte, Louisiana, which have for some time been producing great quantities of petroleum.

A notable gusher was also struck at 2,300 feet at Lakeview, California, on March 15, 1910, producing between 40,000 and 45,000 barrels of oil daily, and rising to a height of from 150 to 300 feet. This gusher is considered second in importance only to the famous "Dos Bocas" of Mexico. California now stands first in oil production, its output exceeding by over 10,000,000 barrels that of Oklahoma, which ranks second.

Fifty years of oil production in the United States.

[Showing total of each State from year of first production to January 1, 1909.]

State and years of production.	Barrels of 42 gallons.
Pennsylvania and New York, 1859 to 1909.....	698,009,862
Ohio, 1876 to 1909.....	377,108,902
California, 1876 to 1909.....	246,820,562
West Virginia, 1876 to 1909.....	194,562,894
Texas, 1889 to 1909.....	129,026,455
Indiana, 1889 to 1909.....	93,411,140
Oklahoma, 1891 to 1909.....	90,883,206
Illinois, 1889 to 1909.....	62,551,789
Kansas, 1889 to 1909.....	44,158,931
Louisiana, 1902 to 1909.....	34,248,641
Colorado, 1887 to 1909.....	9,253,938
Kentucky and Tennessee, 1883 to 1909.....	6,004,345
Wyoming and Utah, 1894 to 1909.....	103,560
Missouri and Michigan, 1889 to 1909.....	36,917
Total (United States—18 States).....	1,986,180,942

Extensive experiments have been conducted to determine the value of petroleum as fuel for power plants as well as for the navy and merchant marine, especially in England and the United States. Numerous merchant vessels have been fully equipped for burning oil as fuel, and, by practical test, it has been determined that oil will evaporate 30 per cent more water per pound than coal, is easier to handle and stow, offers no difficulty in burning, and, in its use, time formerly wasted in coaling and in useless labor is saved, smoke eliminated, fuel space economized, steaming and speed capacities increased, strain on boilers greatly decreased, and a clean ship assured at all times. The crude oil of paraffin base is particularly desirable for fuel, and the only obstacles to its universal use are: (1) Difficulty in obtaining; (2) increased cost over coal. With the production of sufficient petroleum at a reasonable cost, there is little doubt that every ship afloat will be eventually equipped with oil burners and the coal grates pass from use.

The United States Navy has equipped the battle ships *Delaware*, *North Dakota*, *Utah*, *Florida*, *Arkansas*, and *Wyoming* with auxiliary provision for from 400 to 600 tons of fuel oil each. The oil burners are installed over the regular coal grates and can be brought into immediate use as required.

The new battle ships now under construction at the Fore River Ship Building Company, Philadelphia, for the Argentine Government will also be equipped for auxiliary oil capacities of 600 tons each.

The usefulness of petroleum is almost unlimited. Besides the many grades of gasolines, naphthas, illuminating oils, lubricating oils, paraffin, and greases obtained from the crude oil of paraffin base, filtered paraffin residues or concentrated jellies, known as vaseline, petrolatum, cosmoline, and petroleum ointment, are also obtained.

These jellies are universally employed as therapeutic agents in diseases of the skin, as a basis in the manufacture of medicated ointments for general household use, and also in the compounding of shoe and metal polishes.

Rhigolene is used as an anæsthetic; cymogene has been used in the manufacture of ice; nonpoisonous dye materials of every color of the rainbow are used in candy factories and dyeing establishments; and over 30,000,000 pounds of wagon and axle grease are manufactured annually from petroleum in the United States.



DOS BOCAS, MEXICO, OIL GUSHER.

Pronounced by experts one of the greatest in the history of the oil industry. When this well caught fire the flame reached a height of 1,500 feet.

Over 300,000,000 candles of 700 varieties are annually manufactured from paraffin, and on account of their fine quality have practically driven the wax and tallow candles out of the market.

Paraffin is used in the manufacture of chewing gum and of water-proof paper; is useful in preserving biscuits and other bakery products from dampness; as a preservative, on Cleopatra's needle in Central Park; on the fronts of houses in New York City, to prevent crumbling or disintegration of the stone; in laundries, for blanching cotton and linen and polishing starched articles; and in sealing canned fruits, jellies, and preserves. It is also used in the manufacture of colored crayons and as a substitute for beeswax, tallow, and sealing wax.



THE DOS BOCAS OIL WELL.

The overflow from this wonderful well produced a lake of oil extending for a distance of a mile and a half and spread itself over a vast area on Lake Tamiahua of from fifty to sixty square miles.

The use of asphalt and asphalt oils has been greatly augmented by the automobile, and in the treatment of pavements for city streets and country roads a good permanent roadbed, free from dust or mud, has been secured.

It is reported that a trans-Atlantic steamship company has ordered a 9,000-ton liner for the New York service to be fitted with motor engines. It is intended that the speed shall be $12\frac{1}{2}$ knots. There will be an enormous saving of space by the absence of boilers and smokestacks, and no stokers will be required. Crude oil as motive power for ocean-going steamships is not a new idea, but this will be the first time in the history of the merchant marine that it has been used in such a large steamship as a 9,000-ton vessel.

Asphalt, known from earliest time as a satisfactory roofing, is still considered the best. The subway roofing in New York is built almost entirely of asphaltum.

ARGENTINE REPUBLIC.

Little has been known of petroleum in the Argentine Republic, as practically all of the product has been imported in a refined state and, until quite recently, no interest taken in the industry. In the States of Mendoza, Salta, and Jujuy, and the Territories of Neuquen and Chubut, oil has been discovered in paying quantities, and these districts are now under extensive and systematic development.

Surface indications were most encouraging at Comodoro Rivadavia, Chubut, and, after three years of persistent exploration, several producing wells have at last been brought in, at depths ranging from 770 to 1,835 feet, and a spring of petroleum at 1,738 feet. The product is an excellent grade of petroleum, comparing favorably with that from the famous fields in Pennsylvania and Ohio. The Argentine Government and one private company are now operating in this district.

A high-grade petroleum has also been struck by an English company at San Rafael, Mendoza, at a depth of 705 feet, and it is reported by experts that the well is flowing consistently at the rate of 80 barrels daily, and that other wells can be sunk within 125 to 150 feet of this location and yield similar results.

BRAZIL.

Although an abundant supply of bituminous shale, containing about 40 per cent of carbon, has been gathered in various places in the vicinity of Bahia and employed for many years in the manufacture of candles, paraffin, and commercial oils, it was generally believed that petroleum would never be found in paying quantities in Brazil except, perhaps, in the Valley of the Amazon. An official

report from Santos states, however, that petroleum has just been discovered at Ibitinga, Sao Paulo, and that a company is now being organized to develop the industry in that district.

A low-grade asphalt is found in Bofete, Sao Paulo, bituminous shale at Taubate, and vast clay deposits of a sedimentary character along the Parahyba River, which consist of interstratified shales, containing about 21.41 per cent of carbon, and have been used to a limited extent in the manufacture of gas and oils.

At Camamu, on the Marahu River, rich and extensive deposits of lignite are found, from each ton of which it is estimated 3 barrels of oil can be manufactured. Lignite is also found in great abundance at Gandarella and Fonseca, Minas Geraes. An expert examination of the lignite from Gandarella shows that it contains 40 per cent of volatile matter and 48 per cent of fixed carbon, and that 200 pounds of the product will produce 850 cubic feet of gas.

With the exception of an important factory at Bom Jardim, Minas Geraes, where an excellent quality of briquettes is now manufactured, the petroleum industry of Brazil may be considered still in its infancy.

CHILE.

Repeated attempts have been made to secure petroleum in Chile, and, although the *Estadística Minera de Chile*, 1905, reported that there were 24 petroleum deposits in the Republic, no important discoveries were made up to that time. Crude oil has been imported from California for use as fuel by the Taltal Railway, about 500 miles north of Valparaiso; but it is now expected that a sufficient supply can be secured from the fields located in the township of Carelmapu, Province of Llanquihue, 500 miles south of Valparaiso, where an American company has recently brought in a 500-barrel well. It is reported by experts that the formation at Carelmapu is similar to the world-famed Baku, on the Caspian Sea in Russia, and that this newly found field will, under proper development, become one of the world's great producers of high-grade petroleum.

COLOMBIA.

There are strong indications of the presence of petroleum in paying quantities throughout Colombia, especially at Turbaco, near Cartagena, and about the Gulf of Uraba, between the Atrato and Leon rivers. Considerable difficulty has been encountered in drilling, however, on account of the rock formations, but operations will continue in this district, as well as at San Sebastian in the Sinu River Valley, where there is a natural spring of oil flowing about 50 gallons per day and also producing a sufficient supply of gas to supply the boilers used in the development work.

At Tubura, near Barranquilla, there are also indications of petroleum similar to those at Turbaco. Asphalt is found in great quantities at Santander, but the gigantic concession in this district, measuring 100 miles in length and 60 miles in breadth, has not yet been developed to any extent, although a number of large shipments of the product have been made.

Other oil springs of sufficient output to make them commercially valuable have been found in the interior, some 800 or 900 miles south of the Caribbean Sea coast. The product from these springs is used by the Sabana Railway for car-journal lubrication. The Girardot Railway consumes the greater part of the yield of another famous spring about 800 miles south of the mouth of the Magdalena River.

Though most of the oil produced in Colombia is of asphalt base, one well drilled by a Canadian company, some 5 or 6 miles from Puerto Colombia, the seaport of Barranquilla, has given forth an oil of a rather light-green color, declared by Pennsylvania experts to be of paraffin base. This well, it is claimed, has been sunk to a depth of 700 or 800 feet and a large body of oil found.

An American expert who has prospected Colombia reports that the entire territory bordering on the Caribbean, from Venezuela to the Atrato River, is rich in oil, and that even as far inland as 500 miles up the Magdalena indications are most favorable, but for various reasons few wells have been drilled.

In 1908 a refinery with a daily capacity of 50 barrels was built by local capital at Cartagena and has been reported under successful operation. A good demand is found in the home markets for all the products, and it is expected that the refinery will be considerably enlarged and improved during the present year.

CUBA.

It is known that the basic principles of petroleum existed in Cuba from the time of the earliest records, for when SEBASTIAN DE CAMPO sailed into the harbor in 1508 to repair and careen his ships he used a species of asphaltum found in pools in the vicinity to fill the gaping seams of the bodies of his vessels. However, no systematic exploration was attempted until 1881, when MANUEL CUELO, a Spaniard, sunk five wells at the Motembo Estate, near Cardenas. Naphtha of an excellent grade was struck in these wells at depths ranging from 300 to 800 feet, and for many years the gathering and distribution of the product proved a profitable industry. Operations on a more extensive scale are now being conducted, however, and it is expected that with increased depth this district will become a rich producer.

Asphalt is found at Mariel, near Havana, and for about seven years has been gathered and exported to London and Chicago, where it has

been successfully employed in the paving of streets. A company is now installing new machinery at Mariel for the purpose of further increasing the output of asphalt from this district, which in the past has not exceeded 15,000 tons annually.

There is one refinery in Cuba, located at Havana, where a number of products are manufactured.

For the fiscal year ending June 30, 1909, there were exported into Cuba from the United States 5,493,314 gallons of crude oil, most of which has been refined in Havana.

DOMINICAN REPUBLIC.

Near Azua, Dominican Republic, an oil well was sunk several years ago, and at a depth of 940 feet petroleum was encountered in the form of an uncontrollable gusher. It was estimated at that time that the stream of oil rose to a height of 180 feet and flowed at the rate of 2,500 barrels a day.



THE ZORRITOS OIL FIELDS, PERU.

Up to the present time over 300 producing wells have been sunk in this district.

ECUADOR.

Prospects of striking oil in paying quantities are most encouraging throughout Ecuador. Near Canelas, on the Pastoza River, a natural spring of petroleum has been found which flows continuously. Petroleum has also been found and gathered for some time at Salinas, near Santa Elena, and at Puerto Cayo, near Callo, about 250 miles north of Guayaquil, but no important development work has yet been done in either of these districts.

In July, 1909, the Ecuadorean Government granted a concession for the development of petroleum, natural gas, and asphalt on the federal lands, and a company has now been organized for the purpose.

GUATEMALA.

California crude oil is imported through the port of San Jose for use of the locomotives of the Guatemala railways, which are of the oil-burning type.

An exclusive privilege has recently been granted a United States company for the establishment of a plant to refine petroleum and manufacture all other by-products.

HAITI.

Surface indications of petroleum in Haiti are extensive. They exist at Miragoane, in the western part of the Republic; at Furcy, near Petionville; at Hinche, and on the Marolice River, in the central part of the great plateau. Asphalt deposits and bitumen of an excellent grade have also been found near the village of Leogane, and the surrounding country would seem to be a promising field for the discovery of petroleum deposits and worthy of careful and thorough scientific investigation.

Upon completion of the railroad from Port-au-Prince to Cape Haitien, a distance of about 130 miles, a rich mining section of the Republic will be opened and the development of the oil and bitumen industries undertaken on an extensive scale.

HONDURAS.

The discovery of petroleum in various parts of Honduras has given rise to a special company who have recently been granted an exclusive privilege to extract and export this product. Specific data as to the extent of these deposits is not yet available.

MEXICO.

The ancient builders of Mexico used bitumen and asphalt as a cement in the construction of their temples and burned petroleum before their sacred altars. For decades a natural oil spring, measuring 25 feet in circumference and without a surface outlet of any kind, has been known to exist near the Rio Soto la Marina, but its flow has been wasted by continual evaporation as the oil seeped to the surface.

Systematic exploration of the Mexican oil fields has extended over a period of little more than six years, but in that time the possibility of a great future for the industry has been assured, and there is little doubt but that the Republic will take a foremost rank in both the production and refining of petroleum. Already the Mexican oil fields cover an area of over 800 miles.

S. PEARSON & SONS were perhaps the pioneers in exploiting the oil resources of Mexico. Their main plant is situated at Minititlan.

Recently they have been developing wells in the Veracruz district, and have had a certain amount of success in sinking for oil in the Tuxpam region. This firm has large financial interests throughout the Republic, and to them belongs the honor of having completed the port works at Veracruz, a construction work of excellent character.

In the States of Tamaulipas and Veracruz notable progress has been made, especially near the Panuco River, about 15 miles from Tampico, in the State of Veracruz, where a paying well has been brought in at a depth of 2,585 feet and produces about 500 barrels daily.

A remarkable oil gusher, known as "Dos Bocas," and pronounced by experts as one of the greatest in the history of the oil industry, was brought in at 1,800 feet on July 4, 1908, near San Geronimo, 67 miles south of Tampico. It immediately caught fire and burned for a period of fifty-seven days, during which time the flames mounted to heights ranging from 800 to 1,500 feet and measured 40 to 75 feet in width, and it has been variously estimated that 500,000 barrels of oil were consumed daily before the fire was extinguished and the fields exhausted. At night the light from this gusher was visible for more than a hundred miles at sea, and newspapers could be clearly read at a distance of 17 miles.

A company has acquired a tract of land comprising over 400,000 acres at El Ebano, 30 miles from Tampico, upon which it has developed 35 wells at depths ranging from 1,800 to 2,300 feet, which daily produce about 6,000 barrels of oil, valued at \$3,000 gold. Adequate storage tanks and pipe lines have been provided and the product is regularly shipped for refining to Arbol Grande, near Tampico, and also to the National Railways of Mexico for use as fuel in the locomotives. Most of the oil in this vicinity is of a heavy, viscous character and well adapted in its crude form for use as fuel, although under distillation about 30 per cent fractionates into an excellent grade of naphtha and standard white illuminating oil. The residue is converted into asphaltum by the removal of a distillate of 10 per cent and finds at all times a ready market at \$40 a ton in Mexico City, where it is employed in the paving of streets. This asphalt is also exported to Japan and Germany, where it is pronounced of high grade.

A well producing about 400 barrels of liquid asphalt was recently brought in near the Tamesi River, 30 miles from Tampico, but no important shipments of the product have yet been made from that district.

Several producing wells have also been brought in about 50 miles southwest of Tuxpam. The product is of an asphalt base and was struck at a depth of 1,800 feet. The output of this district has not yet been reported.

At Juan Casiana, 85 miles south of Tampico, two producing wells have been sunk which flow daily about 1,200 barrels. A storage

tank of 55,000 barrels' capacity has been erected and a system of pipe lines constructed to Tampico.

On the Isthmus of Tehuantepec, at San Cristobal and Concepcion, about 25 wells have been sunk, with the result that oil has been found at depths ranging from 350 to 500 feet. The product from these two localities, amounting to about 500 barrels of merchantable oil, is conveyed 10 miles by pipe line to a refinery at Minatitlan. The products from this refinery are sold extensively throughout Mexico.

Operations have also extended to the State of Chiapas, where a 400-barrel well has recently been sunk, and to the States of Chihuahua, Michoacan, Tabasco, and Oaxaca, but no important developments have yet been reported from these districts.

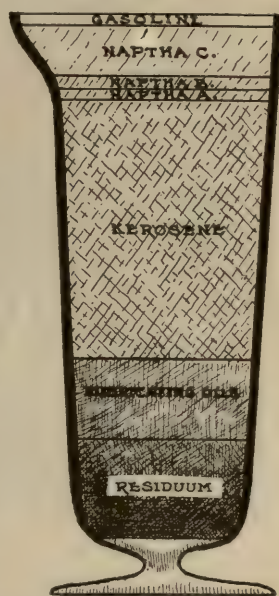
Although the total production of oil in Mexico for the year 1909 amounted to over 3,000,000 barrels, there was not a sufficient quantity to meet local demands for fuel and refined products, and in order to encourage the importation of crude oil the tariff laws have recently been so amended by the Mexican Congress as to permit the importation of crude oil for refining free of duty when any portion of it is to be exported. For some years the railways in Mexico have been consuming annually about 120,000 tons of Welsh coal for use in the locomotives, but it is expected that petroleum will eventually replace coal as a fuel, and oil burners are now gradually being installed in power plants, as well as on the railways, throughout the Republic.

For the fiscal year ending June 30, 1909, 27,554,581 gallons of crude oil were imported from the United States, most of which has been refined in Mexico.

PANAMA.

The Panama Government has granted a concession to exploit the petroleum deposits on the Tonosi River. These fields, extending over a distance of 8 miles, are located on the west coast at Guanico Point, near Mallo, about 100 miles southwest of Panama, and are reported to possess remarkable indications of coal and petroleum deposits.

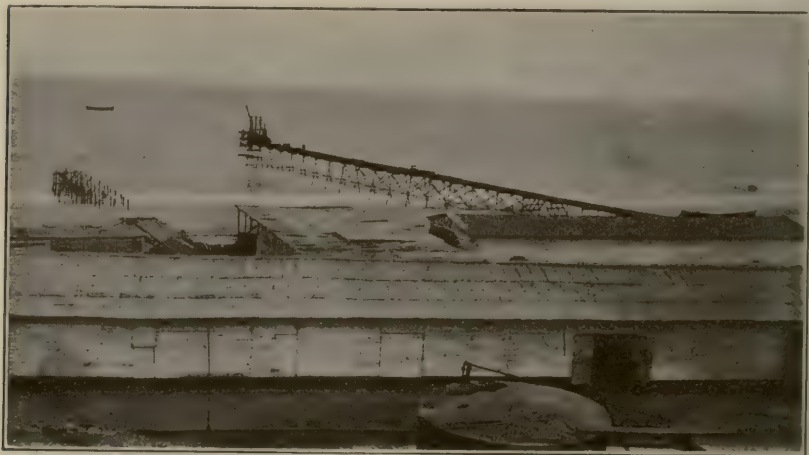
There were 13,250,620 gallons of crude oil imported into Panama from the United States for the fiscal year ending June 30, 1909.



THE PRODUCTS OF PETROLEUM.

PERU.

The Incas employed petroleum long before PIZARRO landed on Peruvian soil at Comendador Creek, where he reported the discovery of a natural spring of oil. This spring was located in what is now known as the Zorritos district, in the Department of Piura, Province of Tumbes, northern Peru, and for generations the product was gathered in the most primitive manner by the natives. In 1864 the attention of prospectors was first attracted to this district, and a small refinery was subsequently built at Tumbes; but no important development work was done in the district until 1883. Since then, however, over 300 producing wells have been sunk, and for many years these were the only fields in Peru developed to any extent. A refinery was erected at Zorritos and satisfactory refined products furnished to the home trade.



WHERE OIL IS LOADED AT ZORRITOS, PERU.

In the Punta Lobitos district over 60 wells have been driven to date, which have produced annually about 500,000 barrels. This district is considered second in importance only to Negritos.

The Negritos district, covering an area of about 5 square miles, has become the greatest producer in Peru. It is located about 6 miles from its port of shipment, Talara, with which place it is connected with a 6-inch pipe line. Over 250 producing wells have been brought in, with an annual flow of over 500,000 barrels of high grade petroleum. A refinery is located at Talara, and the products find a ready sale throughout the Republic where they are pronounced most satisfactory. There is a remarkable asphalt deposit located about 11 miles west of Negritos known as the "Brea Asphalt Flow," which product is evaporated for use as asphaltic paint.

Near Puno, on Lake Titicaca, at an elevation of 12,500 feet, quantities of petroleum have been found, and a company has been organized to develop the district.

The crude oil is used as fuel on the Peruvian railways, and the refined products, gasoline, benzine, kerosene, and lubricating oils are of excellent grade and have taken gold medals at the Lima exposition in 1872, Berlin, 1886, San Francisco, 1894, and Quito, 1909.

The modern turbine steamer *Ucayali* of the Peruvian Steamship Company is now making regular trips between Callao and Panama. But $4\frac{1}{2}$ days are required to cover the distance, including four stops. The steamer can maintain a speed of 19 knots and is burning Peruvian crude oil.

The total production of petroleum in Peru amounted to 1,011,180 barrels for the calendar year 1908.

URUGUAY.

In Santa Lucia, Cerro Largo, Montevideo, and several other districts of Uruguay, strong indications of the existence of petroleum in paying quantities have been found; but no important development work has yet been done in the Republic.

VENEZUELA.

In Venezuela are found some of the world's greatest asphalt deposits. The Guanoco asphalt lake produces during the wet season, from July to December, from 100 to 125 tons, and during the dry season, from January to June, over 20,000 tons of asphalt. From July to December, 1909, 17,000 tons of crude asphalt, valued at \$85,000, were shipped from this district.

Near Fort San Carlos, on the Limon River, in the Lake Maracaibo region, vast asphalt deposits have been discovered. The product is said to run 94 per cent pure in its crude form and to refine to 99 per cent. Petroleum is also found in this district.

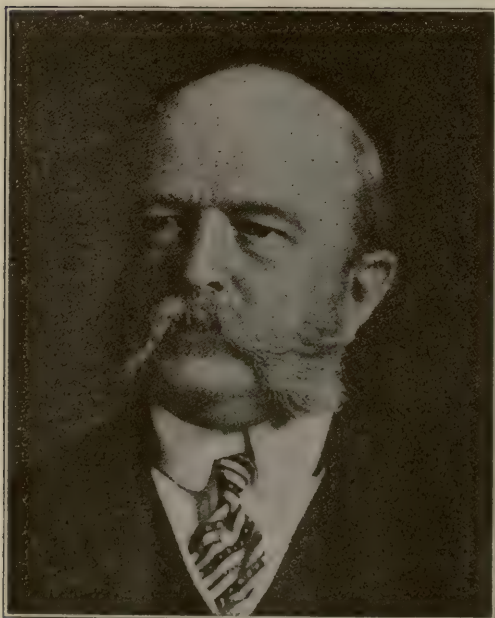
Oil springs exist in several places along the coast west of Puerto Cabello, and petroleum is found in abundance in Cumana and Trujillo, near Puerto Cabello, and in the vicinity of Tocuyo, Capadare, and Curamichate.

The Venezuelan Government has recently granted a concession to an English company, under certain conditions, for a period of thirty years, for the exploration of petroleum and ozokerite in the States of Táchira, Trujillo, Mérida, Zulia, Lara, Falcón, Carabobo, Yaracuy, Sucre, Monagas, Nueva Esparta, and the delta of the Orinoco River. An American corporation has also been favored, for a period of forty-seven years, with a concession, under terms similar to that of the English corporation, for the exploitation of oil fields in Pedernales, Island of Pedernales, islands of Plata, Pesquero, Cotorra, and others in the municipality of Pedernales, in the Federal territory of the Delta Amacuro, the peninsula of Paria, and the district of Benitez in the State of Sucre.

AN EDITORIAL EXCURSION TO MEXICO^a " " "

THE first railway connecting the capital of the Republic of Mexico with the United States was opened for service during the fall of the year 1884, and one of the earliest uses made of it was to send into the United States, on a neighborly visit, a number of representative editors and writers of the periodical press of Mexico.

Since that time intercourse between the two countries has become very intimate. Mexico now



SEÑOR DON GUILLERMO DE LANDA Y ESCANDÓN, GOVERNOR OF THE FEDERAL DISTRICT.

Governor de Landa was the official who personally acted for the Government in the reception of the invited journalists. When they were about to leave the City of Mexico they paid their respects to him in a body and thanked him for his uniform thoughtfulness and courtesy.

understands the industrial and social life of the United States, and carries on the larger proportion of its foreign commerce across the intervening border; the United States no longer thinks of Mexico as isolated, and the people of that country are every year finding greater pleasure and profit in developing an acquaintance so well begun.

The year 1910, it must be remembered, is that of the centennial anniversary of the independence of Mexico, and on September 15 the ringing of the liberty bell by President DIAZ was to mark the passage of the Republic from the old century into the new. There

were to be important celebrations, social functions, and receptions by the Government of distinguished visitors sent from abroad to extend to the people of Mexico the congratulations and expressions of friendship from the nations of the earth. Special ambassadors, ministers, scholars, and publicists were to gather in the City of Mexico to take part in the festival; but the Government, recalling the hospitality

^a By Albert Hale of the staff of the Pan American Union.



THE JOURNALISTS AND THEIR SPECIAL TRAIN AT THE STATION OF JIMULCO.

They were out for a good time, and would not pose formally for a photograph. They were traveling for pleasure, they said, and therefore would not be bound by professional habits away from home.

extended to the visiting journalists in 1884, felt that the celebration could not be complete unless among those formally invited it numbered representatives of the fourth estate. The idea took root in the mind of President DIAZ, the responsibility for the organization was assumed by Vice-President CORRAL, and the details for its execution were intrusted to Mr. PAUL HUDSON, the president of the *Mexican Herald*. The press, therefore, became the guests of the National Centennial Commission.

Mr. HUDSON came to the United States to extend the invitations to the press of that country and of Canada, and made his headquarters in New York. He was authorized to request that a personal representative from the best known periodical publications be



THE DRY DOCK AT SALINA CRUZ.

The Pacific coast below the United States has few facilities for repairing vessels, and the recently completed dock at this point is one of the finest in the world. Its length is 666 feet, width 72 feet, and depth at low tide 29 feet.

assigned to the party, that these members be assembled in St. Louis on September 8, 1910, and that from that date until their return to the same city they should be in his care during an extensive trip through the Republic. The most interesting days of the centenary celebration—in which were necessarily included the historic 15th and 16th of September—the party was to spend in the City of Mexico, where they were to lodge in hotels, but otherwise they had at their disposal a special train that was to be considered their home until the final good-byes were said. No restrictions were placed upon their individual or collective enjoyment, and absolutely no word was expressed that any other relation than that between host and guest should ever be intended by the invitation.

The special editorial train was composed of three modern Pullman cars, a diner, a buffet and lounging car with a barber shop and bathroom at one end, and two baggage cars, so arranged that all baggage not taken by the members to their berths was at any time accessible. The train was electric lighted throughout, vestibuled, served by a picked crew of porters who accompanied it the entire trip, and officered by conductors whose sole duty it was to look after the comfort of their passengers.

Many invitations were accepted, but in some cases (eight in all) extreme regret was expressed that at the last moment circumstances



THE CITY OF GUANAJUATO.

Guanajuato, at an altitude of 7,000 feet, is one of the richest, oldest, and most picturesque towns in Mexico. It lies in a narrow mountain gorge through which an erratic river runs. Recent construction of dams, reservoirs, and a tunnel have removed the danger from it and permitted the introduction of modern improvements in other directions.

prevented participation in the excursion. And the roll call in San Antonio gave this result:

ABOARD THE EDITORIAL TRAIN.

FROM CANADA.

J. A. GAUTIER, *La Patria*, Montreal.
 Dr. J. A. MACDONALD, *Toronto Globe*.
 SMEATON WHITE, *Montreal Gazette*.
 H. B. DONLY, *Montreal Herald*.

FROM THE UNITED STATES.

SAMUEL BOWLES, *Springfield Republican*.
 IRA E. BENNETT, *Washington Post*.
 VICTOR MURDOCK, *Wichita Eagle*.
 FRANK P. MACLENNAN, *Topeka State Journal*.

FROM THE UNITED STATES—continued.

VICTOR ROSEWATER, *Omaha Bee*.
 J. P. DWYER, *Philadelphia Record*.
 J. C. EDGERLEY, *Boston Journal*.
 Col. WILLIAM G. STERRETT, *Dallas News*.
 E. A. DITHMAR, *New York Times*.
 ROBERT E. MACALARNEY, *New York Evening Post*.
 J. WILLIS GLEED, *Kansas City Journal*.
 TILDEN ADAMSON, *Brooklyn Eagle*.
 CHESTER T. CROWELL, *San Antonio Express*.

FROM THE UNITED STATES—continued.

WILLIAM E. BRIGHAM, *Boston Transcript*.
 MICHEL J. DEE, *Detroit Free Press*.
 ROBERT D. HEINL, *Leslie's Weekly*.
 HAMILTON HOLT, *The Independent*.
 THOMAS H. BLODGETT, *Outing*.
 ARTHUR W. PAGE, *World's Work*.
 RAFAEL O. GALVAN, *Las Novedades* (New York).
 R. W. VINCENT, *New York News Bureau*.
 GEORGE BUCHANAN FIFE, *Harper's Weekly*.

FROM THE UNITED STATES—continued.

GEORGE SYLVESTER VIERECK, *Current Literature*.
 ALBERT HALE, *Monthly Bulletin*, Pan American Union.
 W. A. DUPUY, *Washington Correspondent*.
 WALLACE GILLPATRICK, *Mexican Herald* (New York office).
 HERMAN WHITTAKER, *Special writer*.

FROM MEXICO.

PAUL HUDSON, *Mexican Herald*.
 W. E. CLARK, *Mexican Herald*.

From the City of Mexico southward, Mr. COOPER JACKSON, of the *Herald* staff, and Mr. A. W. DONLY, Canadian Commissioner of Commerce, were on the train; and from there northward, Mr. F. R. GUERNSEY, editor of the *Herald*, escorted the party to St. Louis.

Under such favorable conditions, then, was the journey begun. The itinerary prepared by Mr. HUDSON was as follows:

	Time.	Day.	Road.
UNITED STATES.			
Leave St. Louis.....	9.02 p. m.....	Thursday, September 8.....	M. K. & T. R. R.
Leave San Antonio.....	11.30 a. m.....	Saturday, September 10.....	G. H. & S. A. R. R.
MEXICO.			
Leave Ciudad Porfirio Diaz...	6 p. m.....	Saturday, September 10....	National Railways.
Leave Torreon.....	10 a. m.....	Sunday, September 11.....	Do.
Leave Guanajuato.....	12 noon.....	Monday, September 12.....	Do.
Leave Queretaro.....	6 a. m.....	Tuesday, September 13.....	Do.
Arrive Mexico City.....	1 p. m.....	do.....	Do.
Leave Mexico City.....	12 midnight.....	Tuesday, September 20.....	Mexican Railway.
Leave Puebla.....	10 a. m.....	Wednesday, September 21..	Do.
Leave Orizaba.....	4 p. m.....	do.....	Do.
Leave Cordoba.....	8.30 p. m.....	do.....	Veracruz al Istmo Railway.
Leave Santa Lucrecia.....	8.30 a. m.....	Thursday, September 22.....	Tehuantepec National Railway.
Leave Minatitlan.....	12.30 noon.....	do.....	Steam tug.
Leave Coatzacoalcos.....	10.30 a. m.....	Friday, September 23.....	Tehuantepec National Railway.
Leave Rincon Antonio.....	4 p. m.....	do.....	Do.
Leave Tehuantepec.....	11 a. m.....	Saturday, September 24.....	Do.
Arrive Salina Cruz.....	12 noon.....	do.....	Do.
Leave Salina Cruz.....	4 p. m.....	do.....	Do.
Arrive Veracruz.....	1 p. m.....	Sunday, September 25.....	Veracruz al Istmo Railway.
Leave Veracruz.....	8 p. m.....	do.....	Mexican Railway.
Arrive Mexico City.....	12.30 p. m.....	Monday, September 26.....	Do.
Leave Mexico City.....	10 p. m.....	Tuesday, September 27.....	National Railways.
UNITED STATES.			
Arrive Laredo.....	8 a. m.....	Thursday, September 29.....	International and Great Northern Railway.
Leave Laredo.....	9 a. m.....	do.....	
Arrive St. Louis.....	8.30 p. m.....	Friday, September 30.....	

The distance traveled from St. Louis to St. Louis was—	Miles.
Within the Republic of Mexico (including the trip to Cuernavaca).....	3,297
Within the United States.....	2,493
Total.....	5,790

This route was closely followed, and where any delay in the schedule occurred the time so lost was always recovered by increased speed.

The arrival at San Antonio, Texas, was early in the morning of September 10, and the party was immediately taken in charge by the International and Press Clubs of San Antonio. Automobiles were at the station, and a delightful ride was enjoyed over the city and into the country to visit the well-preserved missions which mark the crest of the wave of Spanish settlement. Then back to the International Club, but not to say *adios* according to schedule, because the San Antonians would not let us go. They had prepared a breakfast for the party, to which were invited many prominent residents of the city, especially those whose experiences had brought them in touch with Mexico, for San Antonio is by tradition and habit the gateway



CORRIDOR OF THE CENTRAL POST-OFFICE, CITY OF MEXICO.

The post-office is the finest example of secular architecture in the Republic. The interior, modern in every respect, is made attractive artistically, especially by the liberal use of the beautiful Mexican onyx.

to travel across the Rio Grande. Toasts were exchanged and god-speed was given us, although not until long after the allotted hour for departure. The train was whirled across central Texas; it reached the border at Eagle Pass almost on time, the international bridge was passed, and at 6 o'clock (Mexican time) on the evening of September 10 the party was at last on Mexican soil in the frontier city of Ciudad Porfirio Diaz.

In Ciudad Porfirio Diaz Mexican hospitality began. As the train pulled into the station the band played national airs, and the school children, dressed in holiday attire and waving the flags of the two Republics, joined in the chorus, adding *vivas* of welcome. There

were 1,200 of them, all of whom could speak a little English, as that language is now one of the compulsory studies in the public schools. The train and its occupants were greeted by the officials of the city and of the Government located there, and no delay was occasioned at the custom-house, as everything was passed without examination. It was dusk before the journey was begun again, and the last sound heard as the train continued southward through the State of Coahuila was the children's voices singing the national hymn of Mexico.

At Torreon the next morning the train stopped one hour to give us a glimpse of the size of the place which, with the development of the cotton area near by and the manufacturing industry associated with it, has grown within twenty years from an unimportant railway junction to a prosperous city of almost 30,000 inhabitants. Then continuing southward, through the ancient mining city of Zacatecas, we reached Aguascalientes at 9:30 at night.

During the day the members of the party began to get well acquainted with each other. They discovered that they had in their midst a poet, a duke, and a doctor; there were republicans, democrats, and "insurgents;" they organized a glee club for the idle hours in the buffet car, and for a truly American salute to be given in answer to serenades and *vivas* with which they were so generously greeted at every stopping place, they prepared and practiced an official "editorial yell," as follows:

Here we go

To Mexico.

Viva, Viva, Viva—MEXICO.

D-I-A-Z; D-I-A-Z!

Diaz, Diaz, Diaz.

He's the man for me.

VIVA!

At Aguascalientes only a few moments could be given, but enough for a refreshing walk after the heat and dust of the day. Then a pleasant night's ride to Guanajuato, which was reached early on Monday morning, September 12. A band played for the travelers at the station while they were taking breakfast, a committee appointed by the governor of the State (Guanajuato) escorted them to tram cars specially provided for their use, and the forenoon was spent sightseeing through the curious narrow streets, on the silver-lined hills above the town, in the immense mining plant, along the banks of the swift and dangerous river to study the splendid engineering feat that carries the excess water away from the river by means of a tunnel hewn through the mountain, and finally up to the reservoir (*la presa de la Olla*) and the station of the electric company. The old was inextricably blended with the new, but the sharp-eyed newspaper men seemed most interested in the fact that here, in this

historic city, was a very modern enterprise, an electric company that had harnessed a waterfall 100 miles away, was transmitting power for the city's use, and had plans well under way to increase this power for the street car service and industrial machinery. Moreover, it would then be prepared to transmit this power double the distance and supply it for the same purpose to the city of San Luis Potosi. Such an enterprise can hardly be equaled in the United States; it certainly can not be surpassed.

The hosts of Guanajuato, too, played a trick on the party. They insisted that we stay to breakfast at the *Casino* (club), and they kept us there beyond the schedule time of noon, feasting and exchanging toasts till almost 4 o'clock, and it was quite 6 p. m. before the train



METEOROLOGIC STATION.

This attractive little kiosk, on the Plazuela de Guardilola, on the corner of San Francisco and San Juan de Letran (two important streets in the City of Mexico), was erected in 1907 as a gift to the city. It shows temperature, humidity, and other conditions by means of the best technical instruments.

pulled out of the main-line station of Silao for the next stop at Queretaro. We were due there at 4.30 p. m., but did not arrive till after 9 o'clock.

But the good people of Queretaro were not to be cheated by their neighbors of Guanajuato, and carriages were waiting to take the party to the palace of the governor, who was himself the host and during the entertainment in the evening outlined the sight-seeing planned for the morning. This included visits to the historic spots made memorable by the name of MAXIMILIAN, and to the treasures preserved here in honor of the *Corregidora* DOMINGUEZ, by whose loyalty to the cause due warning was sent to HIDALGO in Dolores so that he could raise the cry of independence one hundred years ago. All this the party saw, but they could not remain to witness the unveiling of the

fine statue to that noble lady, although they had been especially invited to be guests at the occasion that very morning. The train left Queretaro as the ceremony began, and made a record-breaking run of 167 miles to the City of Mexico in a few minutes less than five hours, arriving there shortly after 3 p. m.

In the City of Mexico the train was greeted by a military band, and the party escorted to automobiles that carried the members to the various hotels to which they had been assigned. The rest of the day was left without programme, except that they should report, for information about the projected plans, at the office of the "*Mexican Herald*," which was to be their headquarters during their visit.



ELECTRIC CRANES AT WORK.

On the wharf at Coatzacoalcos. Both at Coatzacoalcos (Puerto Mexico) and Salina Cruz, the two terminals of the Tehuantepec Railway, in Mexico, the facilities for loading and unloading are of the best. Sugar from the Hawaiian Islands is the chief cargo northbound. Some of these cranes have a capacity of 30 tons.

Wednesday, September 14, was spent informally, although as the guests of Mr. TROWBRIDGE, of the Tramways Company, the party was shown the sights of the city during the day and was invited to the opera in the evening.

Thursday, September 15, was a busy day. In the morning the members met early at the Herald Office; they were taken to the National Palace at half past 9, and formally presented to President DIAZ at half past 10, when he received also the special ambassadors and ministers and the entire diplomatic corps. From the windows of the Palace they saw the magnificent historic parade, which lasted over two hours, and they were then hurried to the café at Chapultepec for a breakfast given in their honor by the Mexico Newspaper Reception Committee. In the evening they were again at the Palace to witness the historic ringing, by President DIAZ, of the

liberty bell, and to hear the *Grito*, which declared the entrance of the Republic into its second century of independence.

Friday, September 16, was given altogether to seeing the ceremony at the dedication of the Independence Monument in the first part of the morning, and the military parade which passed from that monument to the National Palace, where it was reviewed by the President. The evening was devoted to informally wandering about the city, which, especially on this, the great holiday of the year, offers to the stranger as varied and oriental a picture as any city in the Old World.

Saturday, September 17, a reception was given by Mr. and Mrs. HUDSON, of the *Mexican Herald*, at their beautiful home in Tacubaya,



THE DRAWBRIDGE AT SALINA CRUZ.

This device is operated by electricity. The entrance from the Pacific Ocean to the outer harbor is 600 feet, but to the inner harbor, through this bridge, the passage is only 90 feet, between solid masonry piers.

and this was followed, later in the afternoon, by a reception by Ambassador and Mrs. WILSON. In the evening a smoker was given by the representatives of the Associated Press in the City of Mexico, Messrs. WHIFFEN and WILLIAMS, at which ladies attended.

Sunday, September 18, was again informal, but many members of the party went to the bull fight in the afternoon, and spent the evening at the Country Club. At night, they divided into two sections, one going to the most romantic spot in all Mexico, Cuernavaca, for a two days' trip into that Old World remnant in New Spain; the other, while enjoying scenery equally as beautiful on the way, preferring to see one of the marvelous triumphs of modern engineering skill in the Republic, the electric power plant at Necaxa, from which power is



THE MEXICAN NEWSPAPER RECEPTION COMMITTEE ASHISTS, AND THE UNITED STATES AND CANADIAN NEWSPAPER REPRESENTATIVES AS GUESTS, AT THE BREAKFAST IN THE CAFE AT CHAPULTEPEC.

supplied both to the City of Mexico, 96 miles away, and to the mines of El Oro, 75 miles away.

Tuesday evening, September 20, both sections returned in time to take their special train at midnight to continue the itinerary. They awoke on Wednesday morning to find themselves in Puebla, the third largest city in the Republic. It was a difficult task to drag the tourists away from the clean streets, the fine old houses, and the interesting new life of the historic town, but they were told that the fascinating sight of the Valley of Maltrata was ahead of them, and this argument prevailed. Down the mountain they crawled to Orizaba, where special tram cars were placed at their disposal, and luckily, too, for a sudden tropic rain poured upon them, and the car afforded the best vantage ground for observation. At Córdoba the train turned south through the State of Vera Cruz, and left them at the oil refinery of S. PEARSON & SON, in Minatitlan, when they are conveyed down the wide and tropical Coatzacoalcos River to the town of the same name, now, however, officially known as Puerto Mexico, on the Gulf of Mexico. The next morning they left the Atlantic side of the continent, and would have had the delightful novelty of seeing the Pacific Ocean on the same day had they not preferred to spend the night in the curious old isthmian village of Tehuantepec. The pleasures of the market place, the startling experience of an earthquake seemingly prepared expressly for them, and the charm of a dance given in their honor by the Indian inhabitants of the place, kept the party completely occupied. The morning, however, saw them on their way to Salina Cruz, the terminus, on the Pacific Ocean, of the Tehuantepec Railway, where they studied the modern docks and transshipment facilities, and learned at first hand to estimate the commercial factors awaiting the completion of the Panama Canal.

Salina Cruz was the extreme point of the itinerary. From there the trip was homeward, with the single digression of a day in Vera Cruz, and a few hours given to the mysterious pyramids of Teotihuacan. As the schedule shows, nearly two more days were given to the City of Mexico. There they called in a body on Vice-President CORRAL to thank him for the courtesies they had received from his hands, but the rest of the time was devoted to such personal matters as chiefly interested the members individually. While the passage northbound was not exactly the same as that over which they had already traveled, yet no lengthy stops were made, and each member of the party took his way homeward from St. Louis as best suited him. They were all grateful to the Mexican people for the unstinted hospitality of the trip, for the care taken for their comfort, and for the very favorable opportunity to visit the country, as well as to see the splendid celebration with which the nation ushered in the beginning of

the new century. They were full of gratitude to all the Mexican officials who met them along the way and spared no pains to welcome them, cordially and sincerely, as friends and neighbors. Their impressions are their own, and the reading world will some time hear from them on the subject, but it can never be said, of the members of this party at least, that they will pass ignorant judgment on Mexico. On leaving the Mexican frontier at Laredo, a telegram was sent to the governor of the federal district, Señor Don GUILLERMO LANDA Y ESCANDON, thanking him in behalf of the party for his attention to them while in the capital. Another was sent to the *jefe político* of



THE WHARVES AT VERA CRUZ.

The port of Veracruz is the most important in Mexico, and the Government is doing everything possible to facilitate shipping. Large vessels can now tie to modern piers and unload without lighters.

Ciudad Porfirio Diaz, who had been the first to meet the train on Mexican soil, and, therefore, to initiate the hospitality they received throughout the Republic.

One result of the trip was the step taken to found "The Mexican Society of New York," the charter members of which will be those who were in this special party. It is the intention of the organization, however, to increase its list by the names of all those resident near the eastern seaboard who are by birth or by sympathy connected with or interested in our sister Republic.

The most impressive event of the entire trip, in so far as it related exclusively to the journalistic functions of the party, was undoubt-

edly the breakfast given them on September 15 at Chapultepec. This was a newspaper affair. As Mr. BENNETT, of the *Washington Post*, said in his toast, they made no claim to be journalists; they were hard-working, sight-seeing newspaper men, and as such took a practical interest in the busy world around them, and they enjoyed being for the moment with their brothers of the same guild. On this occasion they were welcomed, as members of the press, on behalf of President DIAZ by Colonel MANTEROLA of the President's staff, who offered the first toast to the Press. They listened to speeches by LICENCIADO SALAZAR and Congressman ROMERO, with the "press" as their theme; they heard a fine address on the same subject by the special American Ambassador to the Mexican Centenary, Mr. CURTIS GUILD, Jr.; and a member of their own body, Mr. IRA E. BENNETT, of the *Washington Post*, answered these toasts, expressing with a full heart their deep appreciation of all that had been done for them. They heard, also, a critique on American confraternity from Dr. J. A. MACDONALD, of the *Toronto Globe*, who won a round of applause by asserting that Canada was ready to stand with the United States and Mexico, each for the help of the other, and all for the good of the world.

Finally this "editorial excursion" was productive of a poem, read at the breakfast just mentioned, by its author, Mr. GEORGE SYLVESTER VIREECK, the representative of *Current Literature*. It was so spontaneous and so well voiced the sentiments of all that it serves as a fitting end to this record in the BULLETIN.



A LADY OF TEHUANTEPEC.

The Indian women on the Isthmus of Tehuantepec are noted for their animation, good looks, and business acumen. The native costume is the huipil (a lace-like ornament over the head and down the back).

VIVA MEXICO.

Toast proposed September 15, 1910, at the Café Chapultepec, City of Mexico, on behalf of the editorial party, by GEORGE SYLVESTER VIERECK.]

Over the cactus covered plain,
Over steep hills we wandered forth,
The blue-eyed children of the north,
To thee, O sun-kissed child of Spain.

Land, thou, whose memories were old
When the first Viking Vinland saw,
And when COLUMBUS marked with awe
The shore before his eyes unfold.

Enthroned above two mighty seas,
And in thy locks great blooms of fire,
Thou art the realm of heart's desire—
Here CORTEZ sought the Golden Fleece.

Lo, thy gigantic pyramids
O'ertop the monsters of the Nile,
But, ah, no Sphinx, no thing of guile,
Blinks at thy world through sleepy lids.

Though old thou art and wondrous wise
Thy heart, fair land, is young and sings,
And everlasting laughter rings
Neath thine eternal cloudless skies.

Upon thy nation's epic page
The dusk and dawn of all things meet;
Thine immemorial temples greet
The locomotive's groan of rage.

Though living wires, shining rails
Upon thy breast have left their scars,
Naught dims the sound of thy guitars
Nor thy unvanquished beauty pales.

The bowels of thy native earth
Yield yellow gold and opal rare;
More precious still thy women bear
Heroic men of rugged worth.

Ye are the children of the sun;
The snow-clad northland's sons are we,
But no less dear held Liberty
HIDALGO's heart than WASHINGTON.

The selfsame sacred passionate glow
Still lives, a torch in DIAZ' hand;
O young Republic, ardent land—
Hail DIAZ, Viva Mexico!

THE FOURTH PAN AMERICAN CONFERENCE

THE Pan American Union as the office of the Union of American Republics, which held its Fourth Conference at Buenos Aires in July and August of this year, has received for its files a full set of the resolutions and conventions adopted by this conference, and now gives them publicity through the BULLETIN. They will provide interesting and instructive reading for all persons who are watching the development of closer commercial and diplomatic relations among the American Republics. The work of the conference, one of the most important international gatherings ever held, was of a practical character, and these resolutions and conventions show that each committee gave careful study to the problems before it.

These have been unofficially translated from the original Spanish, but the final English text will appear in the report of the Secretary-General of the Conference, not yet printed.

THE FOURTH INTERNATIONAL AMERICAN CONFERENCE. GENERAL RECORD OF PROCEEDINGS.

(Approved and signed by the delegates.)

The Fourth International American Conference, which was formally opened on the 12th of July, 1910, in the city of Buenos Aires, discussed and adopted the following motions, resolutions, and conventions:

MOTION (July 12, 1910).

(Concerning Honorary Presidents.)

The Fourth International American Conference resolves:

That Their Excellencies, Dr. VICTORINO DE LA PLAZA and PHILANDER C. KNOX, respectively Minister of Foreign Relations of the Argentine Republic and Secretary of State of the American Union, be appointed Honorary Chairmen of the Fourth International American Conference.

MOTION (July 14, 1910).

That the members of the Fourth International American Conference rise as a token of respect to the deceased delegates to the previous conference.‡

MOTION (July 14, 1910).

That the Fourth International American Conference express [the] deep regret of the countries therein represented for the loss which America [has sustained by the death of the illustrious Brazilian statesman, Mr. JOAQUIM NABUCO, Chairman of the Third International American Conference, which was held at Rio de Janeiro.

MOTION (July 14, 1910).

The Fourth International American Conference hereby expresses a tribute of deep respect for the high attainments and great virtues of the illustrious Argentinian, Mr. EMILIO MITRE.

MOTION (July 14, 1910).

That the members of the Fourth International American Conference rise as a token of sympathy for France, and that the chairman of the conference send a cable to the President of that country worded as follows:

The delegates of the nations of America assembled in the Conference of Buenos Aires present to Your Excellency their respects in this glorious anniversary of the great Republic of Europe.

MOTION (July 14, 1910).

The Fourth International American Conference hereby resolves to send by cable to the President of the sister Republic of Costa Rica an expression of sympathy and condolence for the recent earthquake which destroyed the city of Cartago.

RESOLUTION (July 14, 1910).

(Amendment to article six of the Regulations.)

The Fourth International American Conference, assembled at Buenos Aires, resolves: To amend article six of its Regulations as follows:

Article 6. The Fourth International American Conference shall have the following committees:

- (1) To consider Subject I (Regulations and Credentials), 5 members.
- (2) To consider Subjects II, V, XIII, and XIV, 7 members.
- (3) To consider Subject III, 1 member for each delegation.
- (4) To consider Subject IV, 1 member for each delegation.
- (5) To consider Subject VI, 1 member for each delegation.
- (6) To consider Subject VII, 7 members.
- (7) To consider Subject VIII, 1 member for each delegation.
- (8) To consider Subject IX, 1 member for each delegation.
- (9) To consider a convention for the American Republics relating to patents of invention and trade-marks, 7 members.
- (10) To consider a convention for the American Republics relating to the copy-right law and Subject XII, 7 members.
- (11) To consider Subject XI, 7 members.
- (12) To consider Subject XV, 1 member for each delegation.
- (13) Publications, 5 members.
- (14) General welfare, 5 members.

MOTION (July 20, 1910).

The Fourth International American Conference authorizes the Chairman to forward at once to the committees the decisions, reports, and other documents, the secretary's office reserving the right to request the return of the same when necessary.

MOTION (July 20, 1910).

(Commemoration of the centennial of the independence of the Republic of Colombia.)

That the Chairman of the Fourth International American Conference send greetings by cable to the Government of Colombia upon the celebration of the first centennial of its independence and that the delegates shall rise in honor of our sister Republic.

CUARTA CONFERENCIA INTERNACIONAL
Sala de Sesiones

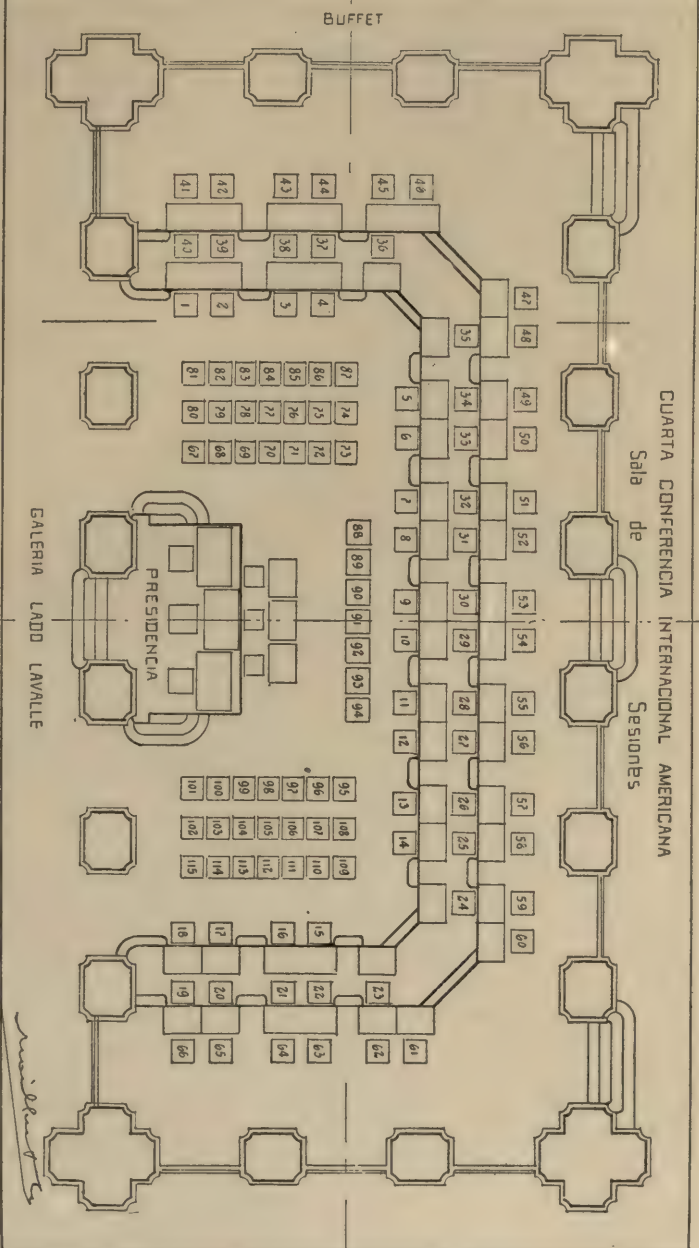


DIAGRAM SHOWING SEATING ARRANGEMENT OF THE DELEGATIONS TO THE FOURTH PAN AMERICAN CONFERENCE.

Argentina, 21, 22, 23, 61, 62, 63, 64. Brazil, 13, 14, 24, 25, 26, 59, 60. Chile, 11, 12, 27, 28, 56, 57. Colombia, 55. Costa Rica, 10. Cuba, 9, 20, 30, 53, 54. Dominican Republic, 8. Ecuador, 31. Guatemala, 6, 32, 51. Haiti, 52. Honduras, 7. Mexico, 5, 33, 34, 50. Nicaragua, 49. Panama, 35. Paraguay, 47, 48. Peru, 36, 45, 46. Salvador, 4. United States, 15, 16, 17, 18, 19, 20, 65, 66. Uruguay, 37, 43, 44. Venezuela, 39, 40. Pan American Union, 41.

MOTION (July 20, 1910).

The Fourth International American Conference invites the Senators and Representatives of the Argentine Republic to attend its sessions and authorizes the Chair to extend this invitation also to such other persons as he may deem expedient.

MOTION (July 28, 1910).

(Commemoration of the independence of Peru.)

That the Fourth International American Conference send greetings, through its Chairman, to the Republic of Peru upon the anniversary of its independence, and that the members of the Conference will rise in honor of said country.

RESOLUTION (August 4, 1910).

(Powers of the delegates.)

The Fourth International American Conference, assembled in Buenos Aires, resolves: That the full power of each delegate as a competent envoy to take part in the Conference and to sign treaties and conventions as representatives of the respective Governments attending this Conference has been duly verified.

RESOLUTION (August 4, 1910).

(Credentials of Mr. ALVAREZ, delegate from Chile.)

The Fourth International American Conference adds the name of Mr. ALEJANDRO ALVAREZ to the list of the delegation of the Republic of Chile.

RESOLUTION (August 4, 1910).

(Commemoration of the independence of the American Republics.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

That with the concurrence and active collaboration of the American nations, there be erected in the city of Buenos Aires a suitable building in which the products of their soil and industries shall be permanently exhibited, to be called the "Pan American Products Exhibition."

That the Independence of the American Republics be commemorated by the publication of an artistic book in which the Declaration of Independence of each one of the countries shall be reproduced in facsimile, together with a historical summary of the great events commemorated and the portraits of the leaders in the cause of emancipation.

In order to carry out these works and to solicit from the several Governments the necessary aid for their completion and maintenance, a council shall be formed in the city of Buenos Aires consisting of the diplomatic representatives of the American Republics accredited to the Argentine Government and the Argentine Pan American Commission. Those Republics having no diplomatic representatives accredited in Buenos Aires may, nevertheless, be represented on the council.

That the Pan American Committees of the respective countries be asked to collaborate with this council in Buenos Aires toward the due and speedy realization of these objects.

RESOLUTION (August 4, 1910).

(Tribute to Mr. ANDREW CARNEGIE.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

First. The Fourth International American Conference declares that Mr. ANDREW CARNEGIE deserves the gratitude of the American Republics.

Second. The Union of the American Republics, on behalf of the Governments therein represented, shall have a gold medal struck bearing these inscriptions in English: On the obverse "The American Republics to ANDREW CARNEGIE," and on the reverse "Benefactor of Humanity."

Third. That the medal referred to in article 2 hereof, together with a copy of this resolution and of the documents thereto relating, shall be presented to Mr. ANDREW CARNEGIE at a special session of the Governing Board of the Union.

RESOLUTION (August 4, 1910).

(International Scientific Congress held in Santiago de Chile.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

First. That the executive of the Conference address the Government of Chile, informing it that in all the Republics was viewed with singular pleasure its action in assembling in the city of Santiago of Chile a scientific congress, and the results thereof.

Second. That the Governments represented be informed that the Conference would consider convenient the meeting of like assemblies as referred to in the section above, to be held in the American cities hereafter to be designated.

RESOLUTION (August 4, 1910).

(Commemoration of the opening of the Panama Canal.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

To refer the manner in which the opening of the Panama Canal shall be celebrated to the Governing Board of the Union of American Republics, in the city of Washington.

MOTION (August 10, 1910).

(Ecuador's commemoration.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

That the Chairman of the Fourth International American Conference send greetings in behalf of the latter to the Government of Ecuador, as a tribute upon the centennial of her national independence, and that the delegates kindly rise as a mark of respect to said Republic.

MOTION (August 10, 1910).

(The Honorary Chairman of the Conference.)

The Fourth International American Conference, through its Chairman, addresses a message of congratulation to His Excellency Don CARLOS RODRIGUEZ LARRETA, member of the Argentine delegation, upon his appointment as Minister of Foreign Relations, and elects him Honorary Chairman of the Conference.

MOTION (August 10, 1910).

(The Honorary Chairman of the Conference.)

The Fourth International American Conference does not accept the resignation of Honorary President of the Conference presented by Dr. VICTORINO DE LA PLAZA, ex-Minister of Foreign Relations of the Argentine Republic.

RESOLUTION (August 10, 1910).

(Credentials of the delegate from Brazil, Mr. JOAQUIM DUARTE MURTINHO.)

The Fourth International American Conference resolves:

That to the list of the delegation from Brazil be added the name of its president and delegate, Mr. JOAQUIM DUARTE MURTINHO.

MOTION (August 10, 1910).

The Fourth International American Conference takes a recess in order that the delegates may attend the ceremony of taking the oath of office as Minister of Foreign Relations by Dr. CARLOS RODRIGUEZ LARRETA.

RESOLUTION (August 10, 1910).

(Memorials and reports.)

The Fourth International American Conference, assembled at Buenos Aires, resolves: To recommend to the Governments therein represented:

(1) That there be sent through the Ministries of Foreign Relations all the reports presented at this Conference to each of the Pan American Committees and to the International Bureau of the American Republics for such use as they may deem advisable.

(2) That inasmuch as reports are very useful, the Governments shall be specially requested to present them at the future Conferences, and, to the end that they be more carefully studied, they should be sent three months in advance to the International Bureau of the American Republics to be printed, in order that they may be distributed on the day of the opening of the Conference.

(3) That the usefulness of the Pan American Committees having been fully demonstrated in the countries where they have been created, and in view of the importance of establishing them in the countries that have not done so, the latter shall be requested to create them as soon as possible, notifying at once the aforesaid Bureau.

(4) To request also of the Governments the compliance with the resolutions of the Third Conference concerning natural resources, monetary system, and commerce, the offices of the respective countries having the right to send directly to the International Bureau in Washington its reports, yearbooks, data, and all kinds of publications relating to those matters.

(5) That in order to facilitate the delivery of the ratification of the conventions and to expedite their exchange and publication, in addition to the ratification copy sent to the Ministry of Foreign Relations of the country where the Conference is held, another copy shall be sent, as a means of information, to the International Bureau of the American Republics, and a like procedure shall be taken with regard to the adherence of the nations which have not already signed the same.

RESOLUTION (August 11, 1910).

(Reorganization of the "Union of American Republics.")

The Fourth International American Conference, assembled in Buenos Aires, resolves:

ARTICLE I. To maintain under the name of "Union of American Republics" the International Union created by the First and confirmed by the Second and Third Conferences, and under the name of "Pan American Union," the institution serving as its agent and having its seat in the building of the American Republics in the city of Washington, D. C.

The purposes of the Pan American Union are the following:

1. To compile and distribute commercial information and prepare commercial reports.

2. To compile and classify information respecting the treaties and conventions between the American Republics and between these and other States, and respecting their legislation in force.

3. To supply information on educational matters.

4. To prepare reports on questions assigned to it by resolutions of the International American Conferences.

5. To assist in obtaining the ratification of the resolutions and conventions adopted by the Conferences.

6. To carry into effect all resolutions the execution of which may have been assigned or may hereafter be assigned to it by the International American Conferences.

7. To act as a permanent committee of the International American Conferences, recommending topics to be included in the programme of the next Conference. These subjects must be communicated to the various Governments forming the Union at least six months before the date of the meeting of the next Conference.

8. To submit within the same period a report to the various Governments on the work of the Pan American Union during the term covered since the meeting of the last Conference, and also special reports on any matter which may have been referred to it for report.

9. To keep the records of the International American Conferences.

ART. II. The control of the Pan American Union is vested in a governing board consisting of the diplomatic representatives of all the Governments of said Republics accredited to the Government of the United States of America and the Secretary of State of the United States, upon whom the American Republics have conferred the chairmanship of the governing board.

ART. III. Any diplomatic representative unable to attend the meetings of the board may transmit his vote, stating his reason therefor in writing. A representation by proxy is prohibited.

Any Republic having no representative accredited before the Government of the United States of America may designate a member of the governing board to represent said Republic in the Union of American Republics, and in this case said representative shall have a vote for each country represented.

ART. IV. The governing board shall hold a regular meeting the first Wednesday of every month, excepting the months of June, July, and August, and special meetings at the call of the chairman, issued on his own initiative or at the request of two members of the board.

The attendance of five members at any regular or special meeting shall be sufficient to permit the board to proceed with the transaction of business.

ART. V. In the absence of the Secretary of State of the United States of America the meetings of the governing board shall be presided over by one of the diplomatic representatives in Washington then present by order of rank and seniority and with the title of vice-chairman.

ART. VI. At the regular meeting to be held in November the governing board shall fix by lot the order of precedence among all the representatives of the American Republics forming the Union in order to create a supervisory committee. The first four on this list and the Secretary of State of the United States of America shall constitute the first supervisory committee, and the four members of the committee shall be replaced by turn, one every year, so that the committee will be totally renewed in four years. The outgoing members shall always be replaced by those following on the list, the same method being observed in the event of resignation.

The Secretary of State of the United States of America shall always be the chairman of the committee.

The supervisory committee shall hold their regular meetings the first Monday of every month, and three members shall be sufficient to constitute a quorum.

ART. VII. There shall be a Director-General, appointed by the governing board, and an assistant director, who shall also discharge the duties of secretary of the governing board.

ART. VIII. The Director-General shall have charge of the administration of the Pan American Union, in accordance with these fundamental rules, the regulations, and the resolutions of the governing board.

He shall have charge of the correspondence with the Governments of the Union through their diplomatic representatives in Washington, or directly in the absence of such representatives, and with the Pan American committees. He must attend

in an advisory capacity the meetings of the governing board, of the committees, and of the American International Conferences, except in the case of resolution to the contrary.

ART. IX. The personnel of the Pan American Union, the number of employees, their appointment, duties, and all matters pertaining thereto, shall be determined by the regulations.

ART. X. There shall be in the capital of each of the Republics of this Union a Pan American committee responsible to the Minister of Foreign Affairs, consisting, if possible, of persons who have been delegates to some International American Conference, their duties being:

(a) To obtain the approval of the resolutions adopted by these conferences.

(b) To furnish promptly to the Pan American Union all the accurate data needed for the preparation of its work.

(c) To submit on its own initiative any projects it may deem proper to foster the interests of the Union, and to exercise such further functions as the respective Governments may deem proper.

These committees shall correspond with the Pan American Union either directly or through the diplomatic representatives in Washington.

Each Government represented in the Union is entitled to send to the Pan American Union, at its own expense, a special agent representing the respective Pan American committee, to furnish such data and reports as may be requested of him, and at the same time to obtain any information that his Government may require.

ART. XI. The Director-General of the Pan American Union shall submit at the regular meeting in November a detailed budget of the expenses for the following year. This budget, after approval by the governing board, shall be transmitted to the various signatory Governments with a statement of the annual quotas which they are to contribute, these quotas being fixed in proportion to the population of each country.

ART. XII. The Pan American Union shall issue such publications as the governing board may determine, and shall publish a bulletin at least once a month.

All geographical maps published by the Pan American Union shall bear a statement thereon that they do not constitute documents approved by the Government of the country to which they apply, nor by the Governments of the countries whose boundaries appear thereon, unless the former and the latter Governments shall have expressly given their approval, which shall in such case also be stated on the map. An identical statement shall be made on the publications of the Union save those of an official nature.

All these publications, with the exception of those determined by the governing board, shall be distributed gratuitously.

ART. XIII. In order to insure the greatest possible accuracy in the publications of the Pan American Union, each of the signatory States shall transmit directly to the Union two copies of all official documents or publications relating to matters connected with the purposes of the Union, and with the same object they shall also send one copy to each of the Pan American committees.

ART. XIV. All correspondence and publications of the Pan American Union shall be carried free of charge by the mails of the American Republics.

ART. XV. The Pan American Union shall be governed by the regulations prepared by the governing board in accordance with these statutes.

ART. XVI. The American Republics bind themselves to continue to support the Pan-American Union for a term of ten years from this date and to pay annually into the treasury of the Pan American Union their respective quotas. Any of the Republics may cease to belong to the Union of American Republics upon notice to the governing board two years in advance. The Pan American Union shall continue for successive terms of ten years unless twelve months before the expiration of such term a majority of members of the Union shall have given official notice through the

Secretary of State of the United States of America of the desire to withdraw therefrom on the expiration of the term

ART. XVII. All other rules and regulations contrary to the present resolution are hereby repealed.

RESOLUTIONS (August 11, 1910).

(The Pan American Railroad.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

(1) To extend the existence, together with all its powers, of the Committee of the Pan American Railroad in Washington, to which, because of the important services it has rendered, the conference hereby expresses its acknowledgments.

(2) The resolutions adopted by the Third Pan American Conference on this same point are hereby confirmed.

(3) Taking into consideration the great moral and material significance involved in the carrying out of such an important work, the conference recommends to the permanent Committee of the Pan American Railroad in Washington that, as soon as possible, it shall gather together all the studies and technical and financial data necessary for the preparation of a final plan and estimate for the construction of said work; requests the countries interested in the execution thereof to adopt and to communicate to the permanent Committee of the Pan American Railroad the most efficient measures concerning the guaranties or subsidies they are able to offer in order to facilitate the execution of this great common aspiration so that said committee, in view of these communications, may propose a practical method of solving this problem which, if it were entrusted to the isolated action of some of the countries specially interested therein, it would be impossible to carry out, or would at least be done at a very remote date.

CONVENTION (August 11, 1910).

(The rights of literary and artistic property.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

ARTICLE 1. The signatory States recognize and protect the rights of literary and artistic property in conformity with the stipulations of the present conventions.

ART. 2. By "literary and artistic works" is meant the books, articles, pamphlets of all kinds—whatever may be the subject they deal with, and whatever be the number of the pages thereof—dramatic or musical works; those of a choregraphic character, musical compositions with or without words; drawings, paintings, sculptures, and engravings; photographic works, astronomical or geographical spheres; plans, sketches or plastic works relating to geography, geology or topography, architecture or any science; and, finally, they also comprise every production that can be published by any printing or reproducing process.

ART. 3. The recognition of the right of property obtained in a State, in conformity with its laws, shall fully and legally have its effects in the other States, without the necessity of complying with any other formality, provided there shall appear in the work any statement showing the reservation of the property.

ART. 4. The right of property of a literary or artistic work includes for its author or successors the exclusive right to dispose of the same, to publish it, to sell it, translate it, or authorize the translation of it, and to reproduce it in any form either in its entirety or partially.

ART. 5. The following shall be regarded as the author of a protected work, except when proofs to the contrary are produced. He whose known name or pseudonym shall be expressed therein, and, consequently, the action brought by the author or his representative against plagiarists or infringers shall be admitted before the courts of the several signatory countries.

ART. 6. Authors or their successors, whether resident or foreign, shall enjoy, in the signatory States, the rights granted by the respective laws, but said rights shall not exceed the period of protection granted in the country of origin.

In the case of works consisting of several volumes which are not published together, as well as in the case of bulletins, serial or periodical publications, the term of the right of property shall commence to count with regard to each volume, bulletin, serial or periodical publication, from the respective date of its publication.

ART. 7. The following shall be regarded as the country of origin of a work; that in which it was first published in America, and, in case said publication has been simultaneously made in several of the signatory countries, then it shall be the one which shall fix the shortest term of protection.

ART. 8 Any work that did not obtain its literary property from the beginning shall not acquire the same in its subsequent editions.

ART. 9. Authorized translations shall be protected in the same manner as original works.

The translators of works in which there is no guaranteed property or in which the same has expired, shall have the right to obtain—in so far as the translations thereof are concerned—the right of property specified in article 3, but they shall not be able to prevent the publication of other translations of the work.

ART. 10. The speeches delivered or read in deliberating assemblies, before the courts of justice, or in public meetings may be published in the newspapers without any authorization whatever, this right being subject to the provisions of the internal laws of each State concerning the matter.

ART. 11. Literary, scientific, or artistic works, whatever may be the subject thereof, published in newspapers or reviews of any of the countries of the Union, shall not be reproduced in the other countries without the previous consent of the authors. With the exception of the aforesaid works, any newspaper article may be reproduced by others, if this has not been expressly prohibited, and, in any event, the source from which said article has been obtained should be duly cited.

Such miscellaneous newspaper news which represent merely press reports shall not enjoy the protection of this convention.

ART. 12. The reproduction of fragments of literary or artistic works in publications for educational purposes or chrestomathy, does not confer any right of property, and, consequently, can be made freely in all the signatory countries.

ART. 13. For the purposes of civil responsibility indirect appropriations, not authorized, of a literary or artistic work not representing the character of the original work, shall be considered unlawful reproductions.

The reproduction, in whatever form, of an entire work or of the greater part thereof, accompanied by notes or comments, on the pretext of literary criticism, or as extension or complement of said work, shall also be considered as unlawful.

ART. 14. Every plagiarized work may be seized in the signatory countries wherein the original work has a right to be legally protected, this right being without prejudice to such indemnities or punishment as the plagiarists may incur, in accordance with the laws of the country where the fraud has been committed.

ART. 15. Each of the Governments of the signatory countries shall preserve the right to permit, guard, or prohibit the circulation, representation, or exhibition of such works or reproductions concerning which its constituted authorities would have to exercise the aforesaid right.

ART. 16. The present convention shall commence to be in force among such signatory States as ratify the same, three months after its ratification shall be communicated to the Argentine Government and shall remain in force among all of them until a year after the date of denouncement.

This denouncement shall be communicated to the Argentine Government and shall have no effect except with regard to the country making the same.

RESOLUTION (August 11, 1910).

(Proposed convention for the reorganization of the Pan American Union.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

Whereas a proposal has been submitted to the consideration of the conference for the permanent organization of the Pan American Union by a convention, be it resolved:

To recommend to the Governments of the American Republics the consideration of the expediency of securing the further development and permanent existence of the Pan American Union, by means of a convention in accordance with the following proposed bases:

PROPOSED CONVENTION.

The Governments of the United States of America, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Salvador, Uruguay, and Venezuela, desirous of establishing on a permanent basis the Pan American Union created by the First International Conference of American States and confirmed by the Second, Third, and Fourth Conferences, hereby resolve to conclude a convention, and to that effect have appointed their respective plenipotentiaries as follows: _____, who, after having communicated to each other their respective powers, found to be in good and due form, have agreed upon the following articles:

ARTICLE I. The Union of the American Republics constituted by the signatory States hereby agrees to maintain, under the name of "Pan American Union," the institution serving as its agent and having its seat in the building of the American Republics in the city of Washington.

ART. II. The purposes of the Pan American Union are as follows:

(1) To compile and distribute information and reports concerning the commercial, industrial, agricultural, and educational conditions of the American countries and their general progress.

(2) To compile and classify information respecting the treaties and conventions between the American Republics, and between these and other States, and respecting their legislation in force.

(3) To assist in the development of commercial and intellectual relations between the American Republics, and in their more intimate mutual acquaintance.

(4) To act as a permanent committee of the International American Conferences; to keep their records; to assist in obtaining the ratification of the resolutions and conventions adopted; to consider or recommend topics to be included in the programme of the next conference; to transmit these to the different Governments of the Union at least six months before the date of meeting of the next conference; and to prepare the programme and regulations for each succeeding conference.

(5) To submit to the several Governments, three months before the meeting of each conference, a report on the work of the institution since the adjournment of the last conference, and also special reports on every topic the consideration of which has been referred to it.

(6) To discharge any other duties that the conferences or the governing board may direct.

ART. III. There shall be at the capital of each of the Republics of this Union a Pan American Committee, responsible to the Minister of Foreign Affairs, consisting, if possible, of persons who have been delegates to some International American Conference, their duties being:

(a) To obtain the approval of the resolutions adopted by these conferences.

(b) To furnish promptly to the Pan American Union all the accurate data needed for the preparation of its work.

(c) To submit on its own initiative any projects that it may deem proper to foster the interests of the Union, and to exercise such further functions to the same ends as the respective Governments may deem proper.

ART. IV. The control of the Pan American Union is vested in the governing board, consisting of the diplomatic representatives of all the other American Governments accredited to the Government of Washington, and the Secretary of State of the United States, upon whom the American Republics have conferred the chairmanship of the governing board.

In the absence of the Secretary of State of the United States, the meetings of the governing board shall be presided over by one of the diplomatic representatives in Washington, then present, by order of rank and seniority, and with the title of vice-chairman.

Any American Government having no diplomatic representative in Washington may vest its representation on the governing board in any other member of the board, and in this case such representative shall have a vote for each country represented.

The governing board shall hold regular monthly meetings, excepting in June, July, and August, and such special meetings as the chairman may call, on his own initiative or at the request of two members of the board.

The attendance of five members at any regular or special meeting shall be sufficient to permit the board to proceed with the transaction of business.

ART. V. The Director-General of the Pan American Union shall submit, at the regular meeting in November, a detailed budget of the expenses for the following year. This budget, after approval by the governing board, shall be transmitted to the various signatory Governments with a statement of the annual quotas which they are to contribute, in proportion to the population of each country, these quotas to be paid by each Government into the treasury of the Pan American Union not later than the first of July.

The governing board shall appoint a committee from among its members, to examine, upon such dates as the board may direct, the accounts of the Union, as determined by the regulations.

ART. VI. The governing board shall appoint:

A Director-General, who shall have charge of the administration of the Pan American Union and the power to promote its efficient development in accordance with the present statutes, the regulations, and resolutions of the governing board, to which he is responsible.

An assistant director, who shall also discharge the duties of secretary of the board.

The other personnel and all matters pertaining thereto shall be determined by the regulations.

The Director-General shall prepare, with the approval of the board, the internal regulations of the several departments of the Pan American Union.

ART. VII. The Pan American Union shall publish a monthly Bulletin, devoted to the first three sections of Article II of this convention, and any other works that the governing board may direct. In order to insure the greatest possible accuracy in these publications, each of the signatory States shall transmit directly to the institution two copies of all official documents or publications relating to the purposes of the Union.

All correspondence and publications of the Union shall be carried free of charge by the mails of the American Republics.

ART. VIII. The Pan American Union shall be governed by the regulations prepared by the governing board in accordance with these bases.

ART. IX. The adherence of the American nations to the foregoing convention shall be transmitted to the Secretary of State of the United States of America, who in turn shall formally notify each of the signatory Governments of such ratification.

In case one of the Governments should desire to denounce the foregoing convention, it may do so by formally notifying the Secretary of State of the United States of America two years in advance. The Secretary of State of the United States of America shall



THE UNITED STATES DELEGATION TO THE FOURTH PAN AMERICAN CONFERENCE AT BUENOS AIRES, WITH STAFF OF SECRETARIES

From left to right, standing: Herman James, Secretary to Mr. Kinley; George Cabot Ward, First Assistant Secretary; Edward B. Moore, Third States Commissioner of Patents; Joseph Altmann, W. T. S. Joyce, First Assistant in the Division of Latin-American Affairs of the State Department; Dr. William R. Snodgrass, of Columbia University, Secretary of the Delegation; Sydney J. Smith, Chief of the Diplomatic Bureau of the State Department; Espect Altmann, and Espect Altmann, Secretary of the Delegation; William J. Montgomery, of the Pan American Union, Translator, Seated: Prof. David Kinley; Prof. Bernard Moore; Col. Ernoch H. Crowder; Hon. Henry White, Chairman of the Delegation; Prof. John B. Moore; Lamar C. Quintero; Prof. Paul S. Kewenich. Mr. Lewis Nixon of the Delegation was not present when this photograph was taken.

transmit such notification to the Governments of the Union and to the governing board. Any of the signatory Governments having denounced the foregoing convention may again become a party thereto in the manner indicated.

In witness whereof, the aforesaid plenipotentiaries have signed and sealed the foregoing convention.

CONVENTION (August 11, 1910).

(Pecuniary claims.)

The Fourth International Conference, assembled in Buenos Aires, resolves:

ARTICLE 1. The high contracting parties bind themselves to submit to arbitration all claims for such pecuniary damages and losses as may be presented by their respective citizens and which can not be settled in a friendly manner through the diplomatic channel, provided said claims are of sufficient importance to warrant the expenses of arbitration.

The award shall be rendered in conformity with the principles of international law.

ART. 2. The high contracting parties agree to submit to the decision of the permanent arbitration court of The Hague all such controversies as may be included in the purposes of this treaty, unless the interested parties shall come to an agreement to constitute a special jurisdiction.

In case the pending question should be submitted to the permanent court of The Hague the high contracting parties accept the provisions established by the convention relating to the organization of the arbitral tribunal, to the procedures to which the same may be subject, and to the obligations of complying with the award.

ART. 3. Should there be an agreement to constitute a special jurisdiction, the rules in conformity with which the tribunal shall have to take cognizance of the questions arising from the claims referred to in article 1 of the present treaty, shall be specified in the agreement providing the same.

ART. 4. This treaty shall commence to be in force immediately after the 31st of December, 1912, when the convention on pecuniary claims, which was signed in Mexico on the 31st of January, 1902, and extended by the convention which was signed in Rio de Janeiro on the 12th of August, 1906, expires.

It shall remain in force for an indefinite period with regard to the countries which at that date have ratified the same, as well as with regard to those which may ratify it subsequently.

The ratifications shall be forwarded to the Government of the Argentine Republic, which shall communicate the same to the other contracting parties.

ART. 5. Any of the countries which ratify the present treaty shall have the right to denounce the same on its own account, notifying in writing its desire two years in advance.

This notice shall be forwarded to the Government of the Argentine Republic and through the latter to the other contracting parties.

ART. 6. The treaty of Mexico shall continue in force even after the 31st of December, 1912, in so far as it concerns any controversy that may have been submitted to arbitration before said date under the stipulations of the treaty.

RESOLUTION (August 11, 1910).

(The International American Scientific Congress.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

To congratulate the Argentine Government for having decreed and the Argentine Scientific Society for having organized and carried out with such brilliant success the meeting of the International American Scientific Congress in Buenos Aires, and

earnestly hopes that such assemblies may be of frequent occurrence in America, and also that in the next Pan American Scientific Congress, which is to meet in the city of Washington in 1912, the American Republics be fully represented in order to secure closer relations between and the general diffusion of knowledge and science throughout the world.

RESOLUTION (August 11, 1910).

(Future conferences.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

(1) That the governing board of the Union of American Republics be empowered, within a term of five years, to convoke the meeting of the Fifth International American Conference. It is at the same time authorized to appoint the city which shall be the place of meeting of the conference, to draw up the programme, and to arrange all details in conformity with the provisions of the resolution organizing the "Union of American Republics." If the assembling of the conference within the period fixed should not be possible, the governing board of the Union may appoint another date.

(2) It is recommended to the said governing board that one year's notice be given of the date and place appointed for the Fifth Conference and that the programme for the said conference be communicated not less than six months previous to the appointed date.

RESOLUTION (August 12, 1910).

(Steamship communication.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

(1) That there should be established, as soon as possible, direct commercial relations among the American nations, always subject to the rules and regulations reciprocally issued by the nations directly interested.

(2) To recommend to the countries represented in this conference to enter into reciprocal conventions for the purpose of establishing direct steamship services adequate to the respective wants of trade, and favoring the construction for said services of steamers of as great capacity and speed as may be consistent with commercial economy.

(3) To recommend that in all cases where any of the countries represented in this conference shall establish by its own initiative a steamship line or lines for traffic with one or more of said countries, the vessels destined to such service shall enjoy, in such ports where they may touch, all the privileges granted to ships which fly the flag or flags of said port or ports of entry.

(4) To recommend that henceforth there shall not be granted to any railroad company, whether it be private or controlled by the Government, any concession by means of which it is authorized to establish, in favor of ships entering in or going out of the ports of the respective State, privileges or rebates that are not also granted to vessels employed in the direct trade with other States represented in this conference.

(5) To recommend to the States represented in this conference the study of the means and conditions under which there may be established among the American Republics the reciprocal freedom in the coasting trade, and to endeavor to submit said report to the next International American Conference.

(6) To recommend to the countries which at present have contracts in force relating to steam communication of an optional character in regard to certain ports of other American countries to take steps in order to make said communication of an obligatory character in the shortest time possible.

(7) To recommend the establishment of national steamship lines between such ports as do not have said service by steamers of American register, for the purpose of

securing continuous and through lines of communication from the north to the south, both on the Pacific and on the Atlantic coasts, at the same time, governmental action to be taken in order that the companies which own the shorter lines may coordinate their services in such way as to avoid loss of time and intermissions in the transportation of merchandise, mail, and passengers.

(8) To recommend that in all cases where vessels complete their itinerary, making port calls in one direction, proper measures be taken to provide sufficient return freight to assure trips in the opposite direction.

(9) In view of their unquestionable importance as factors which will contribute to facilitate and render permanent favorable conditions for a flourishing international commerce, the establishment of banking and direct cable services and the adoption of a common system of weights and measures is hereby recommended.

RESOLUTION (August 12, 1910).

(Coffee Congress.)

The Fourth International American Conference, assembled at Buenos Aires, resolves that:

Whereas the resolution of Rio de Janeiro relative to the meeting of the Coffee Congress at Sao Paulo is in force, the appointment of the date for the convocation of the said Congress shall rest with the Government of Brazil.

MOTION (August 17, 1910).

(Homage to the memory of His Excellency Don PEDRO MONTT, President of Chile.)

The Fourth International American Conference, assembled as a token of respect to the memory of His Excellency Don PEDRO MONTT, President of Chile, sends, through its chairman, the expression of its condolence to the Government and people of Chile, on account of the death of said illustrious statesman.

RESOLUTION (August 18, 1910).

(Sanitary police.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

I. To recommend to those Governments which have not already done so, to adopt the International Sanitary Convention of Washington.

II. To recommend, likewise, that they adopt the recommendations of the Third and Fourth Sanitary Conferences.

III. To re-write Article IX of the Washington Convention thus:

That an area shall no longer be considered as infected, official proof must be furnished satisfactory to both interested parties:

First. That there have been no deaths nor new cases of plague or cholera for five days after the isolation, death, or cure of the last plague or cholera case. In the case of yellow fever the period shall be eighteen days, but the Governments may reserve the right to extend this period against those countries where methods of isolation, disinfection, and destruction of mosquitoes are not practiced.

Second. That all the measures of disinfection have been applied; in the case of plague, that the precautions against rats have been observed, and in the case of yellow fever, that the measures against mosquitoes have been put in operation.

IV. To request all the Republics to be represented in the next Sanitary Conference which shall take place in Santiago, Chile.

RESOLUTION (August 18, 1910).

(Interchange of professors and students.)

The Fourth International American Conference, assembled at Buenos Aires, resolves:

I.

To recommend to the Governments of America, with regard to such universities over which they exercise control and to recommend such universities as are recognized by said Governments to establish an interchange of professors upon the following bases:

(1) The aforesaid universities shall provide facilities in order that the visiting professors may give courses or lectures therein.

(2) The courses of study or lectures shall mainly treat of scientific subjects of American interest or relating to the conditions of some one of the American countries, and specially of that from whence the professor comes.

(3) Every year the universities shall communicate to those with which they wish to establish an interchange the subjects which their professors can teach and those they would prefer to be taught in their own classes.

(4) The remuneration of the professor shall be paid by the university which has selected him unless his services are expressly requested, in which case his salary shall be paid by the university which has solicited his services.

(5) The universities, out of their own funds, should they have such available, or upon obtaining them from the respective Governments, shall fix the annual amounts to be applied to the payment of such expenses as the compliance of the present resolution may require.

(6) It would be desirable that the universities of America assemble themselves in a congress in order to secure university extension and other means of American intellectual cooperation.

II.

Furthermore, the Fourth International American Conference considers it very useful, in order to strengthen the solidarity among all the States of this continent, that there should be an interchange of students between American universities, and to that end,

RESOLVES—

(1) To recommend that the universities of America create scholarships in favor of the students of other countries of the same continent with or without reciprocity, taking either directly or acting through the Governments on which they depend the necessary measures to carry out this resolution.

(2) Each university that has established such scholarships shall appoint a commission charged with the care and assistance of the students who receive such help from the Government, to direct them in their studies and take all the necessary measures in order that they may faithfully fulfill their duties.

(3) Whenever a foreign student is enrolled in a university, the latter shall register his name in the proper course of studies in accordance with the curriculum and the ordinary rules and regulations.

CONVENTION (August 20, 1910).

(Patents of invention and industrial drawings and models.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

ARTICLE I. The signatory nations adopt this convention for the protection of patents of invention and industrial drawings and models.

ART. II. Any person of any of the signatory States shall enjoy, in each of the other States, all the advantages granted by the laws relating to patents of invention and industrial drawings and models. Consequently he shall have the same protection and legal recourses against any infringement against his rights. This article to be without prejudice to the fulfillment of such formalities and conditions as are imposed by the provisions of the interior legislation of each State.

ART. III. Every person who has duly filed an application for a patent of invention or an industrial drawing or model in one of the contracting States shall enjoy the right of ownership for a period of twelve months in the case of patents of invention and of four months in the case of industrial drawings or models, in order that the filing may be made in the other States. This article to be without prejudice to the rights of a third party.

In consequence, the subsequent filing in any of the signatory States before the expiration of the periods specified, shall not be annulled by any acts which may occur in the interval, either especially by means of another filing, by the publication or exploitation of the invention, or by the sale of samples of the drawings or models.

ART. IV. Whenever, in the period or term fixed, a person has filed in several States applications for patents for one and the same invention, the rights resulting from the patents thus applied for shall be independent of each other. They shall also be independent of the rights derived from such patents as may have been acquired for the same invention in countries not being a party to this convention.

ART. V. Such questions as may arise concerning the priority of patents of invention shall be decided, taking into consideration the date of the application of the respective patents in the countries where they were granted.

ART. VI. The following shall be considered as an invention: A new method of manufacturing industrial products; a new machine or mechanical or manual apparatus which may serve to manufacture said products; the discovery of a new industrial product; the application of known means for the purpose of obtaining better results; and every new, original, and ornamental design for an article of manufacture.

The foregoing provision shall be understood without prejudice to the laws of each individual country.

ART. VII. Any of the signatory States may refuse to recognize the patents for any of the following reasons:

(a) Because the inventions or discoveries have been published in any country before the date of the invention claimed by the applicant.

(b) Because they have been registered, published or described in any country one year previous to the date of the application in the country in which the patent has been applied for.

(c) Because it has been in public use or for sale in the country in which the patent has been applied for one year previous to the date of said application.

(d) Because the inventions or discoveries may be in some manner contrary to the morals or to the laws of the country.

ART. VIII. The property of a patent of invention includes the right of enjoying the benefits of the same and the right of ceding or transferring it in accordance with the laws of the country.

ART. IX. Any person incurring civil or criminal responsibilities owing to injury or damage to the rights of inventors shall be prosecuted and punished in conformity with the laws of the country where the crime has been committed or the damage caused.

ART. X. The certified copies of patents of invention in the country of origin in accordance with the laws of the nation, shall be given entire faith and credit as a proof of the right of priority, without prejudice to the provisions contained in Article VII.

ART. XI. Treaties on patents of invention, industrial drawings or models entered into previously between the signatory countries of the present convention, shall be

substituted by the latter as soon as it shall be ratified in so far as it concerns the relations between the signatory States.

ART. XII. The adherence of the American nations to the present convention shall be addressed to the Government of the Argentine Republic, in order that the latter may communicate the same to the other States. These communications shall have the effect of an exchange.

ART. XIII. The signatory nation who may deem it convenient to withdraw from this convention shall notify the Government of the Argentine Republic, and one year after the receipt of said communication this convention shall cease to be in force in so far as it concerns the nation that has denounced it.

RESOLUTION (August 20, 1910).

(Consular documents.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

I. To recommend to the countries which require the general manifest of entry, to omit the consular certificate of said manifest.

II. To recommend to the countries which have adopted the consular manifest of shipment, the adoption of the accompanying model of manifest. (See attached forms.)

III. To recommend to the countries which may adopt the attached form of consular invoice, not to require the consular certification of the bill of lading.

IV. To recommend the use of the attached consular invoice. The latter shall bear on the reverse the spaces intended for the declarations of the seller, manufacturer, or agent, and of the consular certificate, the wording of which shall be made in conformity with the legal provisions of each country.

V. To recommend to such countries as may adopt the model of invoice presented, not to demand the certificate of origin, the statements of which are contained in said invoice model.

VI. That the consular fees shall be moderate and shall not constitute an indirect way of increasing the income derived from custom-house duties, and it is hereby declared that it is beneficial to the interests of the international commerce of the Western Hemisphere to reduce these duties as much as possible, whatever may be the form adopted for the collection of same, so that they may not exceed the amount necessary to cover the expenses caused by the consular service.

VII. To recommend to the governments of the countries represented at this conference to send instructions to their consulates, requesting that they keep their offices open in order that the consular documents may be viséed during the same hours in which the custom-houses of the countries where they are accredited transact business, and to recommend to the governments to insist upon the compliance with the foregoing instructions.

CONSULAR INVOICE (August 20, 1910).

Date _____.

Invoice of _____, shipped by _____, of _____, to _____, of _____, the transportation of which shall be made by _____.

Packages.				Description of merchandise.	Weights, gross net. ^a	Prices, per totals, unit.	Place of origin of the merchandise.	Consular remarks.
Marks.	Number.	Quantity.	Cases.					

^a This column may be omitted by countries which used to require it in the consular manifest.

(Signature of the seller, manufacturer, or authorized agent.)

On the reverse shall appear the following signatures:

Declaration:	Consular certificate.
Of the seller, manufacturer, or authorized agent:	The consul of

CONSULAR MANIFEST.

Manifest for the cargo of the (class, flag, and name of the vessel), Captain ———, of ——— tonnage, and ——— members of crew, including the captain, making the voyage from ——— to ——— (port of destination), consigned to ———.

Packages.			Description of contents.	Weights of volumes.	Shipper.	Consignee. (It should be stated if the bill of lading is sent by order.)	Total of packages to each consignee.
Marks.	Number.	Quantity.	Cases.				

I, Mr. ———, captain of the said vessel, hereby declare that I have not shipped any other cargo on board this vessel than as above stated, with the exceptions of the provisions of the vessel, and that during my voyage I shall make such other declaration in writing as should be added to those made in this manifest, on account of lack of volume as well as of an increase of the same, in order to deliver it, together with the said manifest and the corresponding bill of lading, to the first custom-house officer that may come on board of the vessel under my command at the port of destination.

The consul of (place and date) certifies that this manifest, in conformity with ——— bills of lading and ——— certificates of consignment, is legalized by all the declarations required by the custom-house regulations of ———, with corrections, erasures, or interlineations.

In testimony whereof I sign these presents and affix the seal of the consulate.

[SEAL.]

(Place and date.)

(Signature of consul.)

RESOLUTION (August 20, 1910).

(Custom-house regulation.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

I. That in case any packages destined to another port, either national or foreign, have been landed in a certain port, the same shall be permitted to be reembarked without the imposition of any fine, provided it shall be shown in an authentic manner that its true destination was another port.

II. That in order to facilitate the prompt dispatch of vessels instructions should be issued authorizing the custom-house officer to authorize, before the arrival of the ship, upon the request of the interested party and in conformity with the proper regulations, the preparation of cargoes for shipment.

III. That the respective Governments shall establish regulations: (1) Permitting the operations of loading and unloading of merchandise during the night in all such cases as may be allowable in the opinion of the proper authorities; and (2) authorizing the same operations and the simultaneous operations of loading and unloading on the same vessel on holidays, including Sundays, with the exception of national holidays.

IV. That means shall be provided for the transit of the merchandise of international commerce through the territory of the several countries, simplifying as much as possible such documents as may be required to carry out this operation without prejudice to all such measures as may be necessary to prevent fraud.

That the merchandise in transit through the means of communication of any country is not subject to any tax and shall only pay for such services as are rendered for the proper installation of the ports or of the roads traversed and of the vigilance service at the same rates as said services are paid for on the merchandise for local consumption of the country through whose jurisdiction the transit is made. It shall be understood that this exemption of duties shall only apply in those cases in which it may be consistent with special circumstances, the resources and economical conditions of the country through which the transit is made.

V. That the custom-houses of the American countries, in case of consultation or the sending of a sample of any article of importation, shall indicate the classification assigned to it in the custom-house tariff and the duties to which consequently it is subject.

RESOLUTION (August 20, 1910).

(Section of commerce, custom-house and statistics.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

I. To request the governing board of the Pan American Union to establish the section of commerce, custom-house and statistics which was also recommended by the International Conference of Rio de Janeiro. This section shall send an expert in custom-house matters to the several American countries, for the purpose of securing and getting together the laws, custom-house and consular regulations, and to publish them in a compilation which shall permit to easily make a comparative study of the provisions contained therein, and shall serve as a book of reference in all questions relating to international commerce.

II. That the governing board of the Pan American Union shall send to the Governments of the nations represented in this conference, one year before the date in which the next conference shall take place, a report on the following subjects:

(1) Imposts to which navigation in the ports of American countries is subject.

(2) Documents which shall accompany the applications filed at the custom-houses for the proper dispatch of merchandise; the form and requisites of these applications and the possibility of adopting a uniform model.

(3) The systems of appraisement of merchandise, for the payment of custom-house duties and the preparation of commercial statistics in America, as well as the advantages and drawbacks of the different systems.

(4) Organization of the custom-house offices and procedure.

(5) Other measures the adoption of which might be recommended for the purpose of rendering uniform the custom-house and consular administration of the American Republics.

III. To recommend to the Bureau of the American Republics the preparation of a vocabulary of the different expressions and synonyms employed in the countries of America to designate the same articles and products, with their equivalents in English, French, and Portuguese. In this compilation shall be indicated—in such manner as the Pan American Union may deem most convenient—the custom-house duties to

which said articles are subject in the several Republics of the Western Hemisphere, as well as such classification as has been given them in the appraisement tariff.

In order to make this compilation, it is hereby recommended that the Pan American Commission of each Republic shall prepare and send to the Pan American Union the list of articles the designation of which in the respective country has a special meaning or was not generally used in America, together with the equivalent in Spanish, whenever there is one, stating, also, any other data that should be added. The section of custom-house, commerce, and statistics of the Union shall, in view of these data, coordinate the aforesaid nomenclature.

RESOLUTION (August 20, 1910).

(Commercial statistics.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:

That the section of commerce, custom-house, and statistics managed or advised by experts in the matter shall proceed to realize the following undertakings:

1. To compile and put in order all such data and antecedents as may be necessary to acquire a perfect knowledge and make the proper study of the procedure followed in the American Republics in the preparation of their statistics of foreign trade, both general and special, namely: The classifications, grouping, definitions, and nomenclature used in said countries; the procedure adopted in order to fix the values of the imports and exports, to determine the country of origin of the merchandise and the places they come from, as well as the destination of the exports; the monetary equivalents and all such details as might contribute to obtain the desired results.

2. In view of the data and antecedents referred to in the foregoing clause, to prepare a comparative report of the statistics of the American Republics, calling attention to the principal differences between the methods and processes employed in them.

3. To prepare a project of bases which shall be submitted to the consideration of the respective Governments in order that they may examine and give, in due time, such instructions as they may deem advisable to their delegates to the Fifth Pan American Conference, or to a special Congress that may be assembled to that effect, if it should be necessary to postpone the conference, or if the Governing Board of the Pan American Union should recommend the holding of a special conference, in view of the technical character of the custom-house and statistical subjects, and as soon as the study and reports entrusted to the section of commerce, custom-house, and statistics are completed.

The project of bases which shall be submitted by the section of commerce, custom-house, and statistics shall deal with the following questions:

- (a) Uniform processes for fixing the values of the international trade in order that the statistics may be efficiently compared and serve as a base of such agreements or conventions as said governments may enter into concerning trade or navigation.

- (b) Identical or similar classifications and grouping of merchandise imported or exported, to the same purpose as is set forth in the foregoing paragraph.

- (c) The adoption of the same method in order to determine the origin and place where the imports come from, as well as of the destination of the exports.

- (d) The use of the same commercial nomenclature in so far as the diversity of the languages and of the products will permit.

- (e) The adoption of identical usual meanings of the terms most frequently applied in commercial statistics.

- (f) The strict compliance with the decimal metric system, in order to secure as much uniformity as possible in everything relating to weights and measures.

RESOLUTION (August 20, 1910).

(Census.)

The Fourth International American Conference, assembled in Buenos Aires, resolves: To recommend to the Governments of the American States:

(1) Taking the census of population every ten years, taking into consideration the latest scientific methods and technical processes.

(2) That a census of population be taken in all the American States in 1920 and if possible on the same month, said work to be recommended in advance by the Pan American Union in Washington.

(3) To recommend also to the countries of the Pan American Union, that in the aforesaid date to proceed to take a general industrial census and such other census as science and experience may suggest.

CONVENTION (August 20, 1910).

(Trade and commercial marks.)

ARTICLE I. The signatory nations adopt this convention for the protection of trade and commercial marks and commercial names.

ART. II. Every trade-mark duly registered in any of the signatory States shall be considered as registered also in the other countries of the Union, without prejudice to the rights of a third party and of the provisions of the laws of each nation.

In order to enjoy this privilege the manufacturer or merchant interested in the registration of the trade-mark shall contribute pay, in addition to the fees or emoluments fixed in the law of each nation, the sum of \$50, once only, which sum shall be applied to cover the expenses of the international registration of the respective office.

ART. III. The deposit of a trade or commercial mark in one of the signatory States gives to the depositor the right of priority during a period of six months to enable him to make the deposit in other States.

Consequently, the deposit subsequently made and before the expiration of said term shall not be annulled by acts executed in the interval, especially by another deposit, the publication, or the use of the trade-mark.

ART. IV. The following shall be considered as a trade or commercial mark: Every sign, emblem, or especial name that merchants or manufacturers may adopt or apply to their articles or products in order to distinguish them from those of other manufacturers or merchants who make or deal in articles of the same kind.

ART. V. The following shall not be adopted or used as trade or commercial marks: National, provincial, or municipal flags or coats of arms; immoral or scandalous figures; the characteristics that may have been already obtained by others or that are liable to confusion with other marks; the general names of articles; the pictures or names of persons without their consent; and any drawing that has been adopted as an emblem by any fraternal or humanitarian association.

The above provision shall be understood without prejudice to the provisions of the laws of each country.

ART. VI. Such questions as may arise about the priority of the deposit or adoption of a trade or commercial mark shall be decided, taking into consideration the date of the deposit in the country where the first application was made.

ART. VII. The ownership of a trade or commercial mark includes the right to enjoy the privilege of the same and the right also of ceding its total or partial ownership or use in conformity with the law of each country.

ART. VIII. The counterfeiting, imitation, or improper use of commercial or trade marks, as well as the false representation of the origin of the product, shall be prosecuted by the interested party, in accordance with the laws of the State in whose territory the crime has been committed.

For the purposes of this article the following shall be considered as interested parties: Any producer, manufacturer, or merchant engaged in the production, manufacture, or trade of said product, or, in case of a false representation of the origin of the product, the person established in the locality falsely represented as the origin or in the region in which said locality may be situated.

ART. IX. Any person of one of the signatory States shall have the right to apply for and obtain, in any of the other States, before the proper judicial authority, the annulment of the registration of a trade or commercial mark when he has applied for the registration of said mark or of any other that is liable to be confused in said State with the one the annulment of which is sought, by proving:

(a) That the mark the registration of which is applied for has been employed or used within the country before the employment or use of the mark registered by the registrator or by the one or ones from whom he obtained it.

(b) That the registrator of the mark the annulment of which is sought had knowledge of the ownership, employment, or use of the mark of the applicant in any of the signatory States before the employment or use of the mark registered by the registrator or by the one or ones from whom he obtained it.

(c) That the registrator had no right to the ownership, use, or employment of the mark registered on the date of its deposit.

(d) That the mark registered had not been used or employed by the registrator or his successor within the term fixed by the laws of the State wherein the registration was made.

ART. X. The commercial names shall be protected in all the States of the Union without obligation of deposit or registration whether they constitute or not a part of a trade or commercial mark.

ART. XI. For the purposes set forth in the present treaty a union of the American nations is hereby constituted which shall act, through the medium of two established offices, one in the city of Havana and the other in Rio de Janeiro, and which shall be in complete co-relation with each other.

ART. XII. The international offices shall have the following functions:

(1) To keep a record of the certificates of ownership of trade and commercial marks issued by any of the signatory States.

(2) To gather as much information and data as may have relation with the protection of intellectual and industrial ownership, and to publish and circulate the work in the Nations of the Union as well as to supply any special information they may need on the matter.

(3) To foster the study and diffusion of questions relating to the protection of the intellectual and industrial ownership, publishing to that effect one or more official reviews, in which there shall be published, in its entirety or as a résumé, such documents as the authorities of the signatory States send to the office.

The governments of said States bind themselves to send to the international American offices the official publications containing declarations of registration of trade-marks, commercial names, and the granting of patents, of privileges, as well as the decisions of annulment of trade-marks or patents of inventions issued by their respective courts.

(4) To communicate to the governments of the States of the Union any difficulties or obstacles opposed to or causing delay to the efficient compliance with this convention.

(5) To contribute, together with the governments of the signatory States, to the preparation of international conferences in order to study laws relating to industrial ownership as well as such reforms as may be convenient to introduce the régime of the Union or in the treaties in force concerning the protection of the former. The directors of the offices shall have the right to attend the sessions of the conferences where they shall have the right to speak but not to vote.

(6) To submit to the Governments of Cuba and the United States of Brazil annual statements of the work done, forwarding the same also to the governments of all the other States of the Union.

(7) To initiate and maintain relations with similar offices and with scientific and industrial societies or institutions in order to secure the exchange of publications, reports, and data that may contribute to the progress of the right of industrial property.

(8) To investigate the cases in which trade or commercial marks, industrial drawings, or models have not been recognized or registered, in accordance with this convention, by the authorities of any of the States of the Union, communicating the facts in the case and stating the reasons presented, to the Government of the country of origin and to the interested parties.

(9) To cooperate as agents of the Governments of the signatory nations before the respective authorities, in order to obtain the best result in any steps that may be taken to promote or carry out the ends of this convention.

ART. XIII. The office established in the city of Havana shall have charge of the registers of the trade and commercial marks from the United States of America, Mexico, Cuba, Haiti, the Dominican Republic, El Salvador, Honduras, Nicaragua, Costa Rica, Guatemala, and Panama.

The office established in the city of Rio de Janeiro shall have charge of the registers of the trade and commercial marks from Brazil, Uruguay, Argentina, Paraguay, Bolivia, Chile, Peru, Ecuador, Venezuela, and Colombia.

ART. XIV. Both international offices shall be considered as one office and for the purposes of the unification of the registers, it is hereby resolved:

(a) That both offices keep the same books and the same accounts under an identical system.

(b) That every week there shall be reciprocally sent copies of all the applications, registrations, communications, and any other documents relating to the acknowledgment of the rights of the owners.

ART. XV. The international offices shall be governed by the same rules and regulations drafted by agreement of the Governments of the Republics of Cuba and the United States of Brazil, and approved by all the other signatory States.

The estimates of expenses shall be approved by the aforesaid Governments and paid by all the signatory States in an equal proportion to that established for the International Bureau of the American Republics in Washington, and to that effect said offices shall be under the control of the Governments in whose countries they are established.

The international offices may adopt such interior rules and regulations as they may deem advisable for compliance with the stipulations of this convention, provided they are not incompatible with the terms of said convention.

ART. XVI. The Governments of the Republics of Cuba and of the United States of Brazil shall proceed to organize the offices of the International Union in accordance with what has been stipulated, as soon as this convention shall have been ratified by two-thirds, at least, of the nations pertaining to each group.

The simultaneous establishment of both offices shall not be necessary, and a single one may be installed provided there is the specified number of signatory nations.

ART. XVII. The treaties on trade and commercial marks entered into formerly among the signatory States shall be substituted by this convention from the date of its ratification in regard to the relations among said States.

ART. XVIII. The ratifications or adherences of the American nations to this convention shall be communicated to the Government of the Argentine Republic, who shall make them known to the other States of the Union. Said communications shall be considered as an exchange.

ART. XIX. Any State that may deem it convenient to separate from this convention shall make known its desires to the Government of the Argentine Republic,

and the latter shall communicate the fact to the other States of the Union, and a year after having received the respective communication this convention shall cease to be in force in so far as it concerns the State which has denounced it.

RESOLUTION (August 20, 1910).

(National bibliographical offices.)

The Fourth International American Conference, assembled in Buenos Aires, resolves:
To recommend the establishment of national bibliographical offices in the American countries where they do not as yet exist on the same basis as those recently created in the Argentine Republic, Chile, and Peru.

MOTION (August 20, 1910).

(The Pan American Railroad.)

The Fourth International American Congress urges the American Governments to prosecute and accelerate the works of the Pan American Railroad upon a fixed and determined plan.

MOTION (August 20, 1910).

(Message to Mr. ELIHU ROOT.)

The Fourth International American Conference sends to Your Excellency a vote of high esteem and everlasting remembrance.



COLUMBUS DAY IN THE AMERICAS

IT is most fitting that the 12th of October, the anniversary of the discovery of America, should be recognized as a day of rejoicing in the United States, and, in fact, it would seem that the day should be more universally celebrated as a holiday over all America.

In giving it the designation of "Columbus Day," we do no more than pay deserved honor to the great Admiral in tardy recognition of the importance of his achievement.

The Commonwealth of Massachusetts, having designated the date of the discovery of America to be set apart as a legal holiday, the city of Boston celebrated the occasion with a great military and civic pageant, which was reviewed by the President of the United States, Governor DRAPER, Archbishop O'CONNELL, and the mayor of the city. Forty thousand men of the Army, Navy, and Militia, and various Catholic societies passed the reviewing stand, and the sight was a most impressive one. A feature of the parade was the many floats depicting scenes from the life of the discoverer, one of the most striking being a representation of COLUMBUS seeking aid at the court of Spain. An enormous crowd viewed the procession, and President TAFT commented upon the distinct success of the celebration.

In Chicago and New York the day was also fittingly observed. In the former city, Vice-President SHERMAN was the guest of honor of the Knights of Columbus at a banquet given in honor of the occasion. Special services were held in all the Catholic churches, thus adding dignity and solemnity to the character of the general celebrations. In New York there was a grand civic parade, under the auspices of the local Italian societies.

The following States officially observed the day: California, Colorado, Connecticut, Illinois, Kentucky, Maryland, Michigan, Missouri, Montana, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Massachusetts. It has only been within the last few years that these 15 States have seen fit to include the 12th of October in their list of legal holidays.

In Latin American countries, the following observed the date of the discovery of America in an official manner: Brazil, Colombia, Costa Rica, Panama, and Peru.

The credit for the extensive recognition of the day throughout the United States is in a great measure due to the efforts of the Knights of Columbus, a well-known fraternal organization.

It is surprising that so little attention has been paid to honoring COLUMBUS in this manner throughout the western continent. In view of the fact that to the great Genoese navigator belongs the honor of making known the Western Hemisphere to the world, it would seem that Columbus Day should be one of general rejoicing in all American countries.

THE FEDERAL TELE- GRAPH SYSTEM OF MEXICO

THE Republic of Mexico, in common with the principal European and South American countries, has a system of government telegraphs which furnishes good service at very moderate rates—the government's purpose being to supply telegraphic facilities to the people at cost. The rates are extremely low; a 10-word telegram can be sent from one end of the country to the other for only 1 *peso*, or 50 cents United States currency; and for shorter distances the rates are proportionately less. Night telegrams are accepted for transmission between 10 p. m. and midnight at one-half the day rates.

Standard MORSE instruments are used, also the regular MORSE alphabet, with a few changes necessary to adapt it to the Spanish language. The lines are built with both iron and wooden poles, and both glass and porcelain insulators are used. The wire chiefly employed in the construction of the lines is No. 8 galvanized iron telegraph wire.

In the Federal District, within which lies the capital, there is a cheap and convenient card-telegram service. Cards about the size and shape of postal cards are sold for 5 centavos (2½ cents United States currency) each, and have spaces for the address, a 10-word message, and the signature of the sender. Such a card, after being filled out, may be deposited in one of the numerous boxes that are placed similarly to letter boxes at street intersections and other important points and from which collections are made at short intervals. The cards thus collected are telegraphed from the nearest branch office to the branch which is in the district within which the addressee lives and from there delivery is made by the regular messengers. This card-telegram service is largely employed by the Mexican people for social as well as for business purposes.

The federal telegraph system of Mexico is an extensive one. There are 491 telegraph offices in the Republic, with 23 telephone stations and 6 wireless telegraph stations. The total length of the telegraph lines is 75,000 kilometers (47,000 miles), and there are nearly 800 kilometers of submarine and underground cables. Nearly 4,500,000 telegrams were transmitted over the federal lines during the fiscal

year ended June 30, 1910, and these telegrams contained a total of over 70,000,000 words. The receipts from all sources during the year exceeded 2,000,000 *pesos*. The employees of the federal telegraphs number nearly 3,000.

The Government maintains a school of telegraphy, the teachers of which are, in the main, officials of the federal telegraphs. The course in this school is designed to impart a practical knowledge of telegraphy, but the general theory of electricity is also taught, together with other subjects such as arithmetic, algebra, and geometry, adding to the general culture of the students. The young men who complete the course secure positions in the federal telegraph service. The tuition in the telegraph school is free, the Government's object being to supply trained telegraphers to its Department of Federal Telegraphs.

The Director-General of the Mexican telegraph system is Engineer CAMILO A. GONZÁLES, to whom the present high efficiency of the service is largely due. The federal telegraphs form a part of the Department of Communications and Public Works, under Mr. LEANDRO FERNÁNDEZ, one of the most progressive members of President DIAZ' cabinet.

The following is a detailed statement of the system for the fiscal year ended June 30, 1910:

Number of offices:

Equipped with Morse telegraph instruments.....	491
Equipped with radio-telegraphs.....	6
Equipped with telephones.....	23

Total.....	520
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Length of lines: Kilometers.

Extent of system.....	36, 133
Total length of wires.....	74, 254

Length of cables: Meters.

Submarines.....	745, 539
Subfluvial.....	17, 548
Subterranean.....	7, 489

Total.....	770, 576
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Volume of correspondence:

Telegrams transmitted from July 1, 1909, to June 30, 1910.....	4, 443, 519
Words contained in the same.....	70, 108, 888
Telephonic messages transmitted for telegraph service.....	23, 337
Words.....	328, 982

Financial statement: Mexican pesos.

Received from national correspondence.....	1, 775, 134. 40
From international correspondence.....	292, 977. 35
From telegraphic orders.....	106, 091. 69
From other sources.....	51, 443. 03

Total.....	2, 225, 646. 47
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The number of the employees of the federal system is somewhat over 3,000.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO OCTOBER 15, 1910.

Title.	Date of report.	Author.
ARGENTINA.		
Mines in Argentina; annual report of Bureau of Mines and other official publications.	1910. July 13	R. M. Bartleman, Consul-General, Buenos Aires.
Boletin de Hacienda (Bulletin of Finance) and comments on certain articles therein.	July 26	Do.
Steam rollers: Use of, and market for American.	July 29	Do.
Cordoba, Argentina.	Aug. 1	Do.
Electrical notes.	Aug. 3	Do.
Trade notes (prepared by Vice-Consul-General CHARLES LYON CHANDLER): Population of Province of Buenos Aires was 1,840,362 on Jan. 1, 1910; city of Buenos Aires had 1,270,234 inhabitants on June 30, 1910, and city of La Plata 96,000 on May 31, 1910. Capital of National Mortgage Bank has been recently increased to \$500,000,000 Argentine gold (\$482,500,000 United States currency). Province of Buenos Aires has recently negotiated with German bankers for issue of \$10,080,000 Argentine gold (\$9,727,200) to increase the government portion of the Banco de la Provincia for dealing in mortgages; private mortgage banks are increasing their capital. Federal alcohol tax of \$1 Argentine paper. Bill now pending before Federal Congress imposing heavy taxes on establishments in Federal Capital which sell spirituous liquors. A temperance society formed in Buenos Aires, carrying on antialcohol propaganda. United States packing interests endeavoring to extend their present holdings in Argentina to Province of Entre Rios. New type of barge—it is proposed to create Federal Bureau of Highways and Bridges in Ministry of Public Works. Holland sparing no pains to increase her trade and influence with Argentina.	Aug. 11	Do.
Wool in Argentina.	Aug. 12	Do.
Trade notes: Railway from Apostoles to Posadas, territory of Misiones, opened Aug. 16, 1910. Sixty-three kilometers (39.14 miles) of railway from Puerto Deseado to Nahuel Huapi completed Aug. 22, 1910. Puerto Deseado has over 1,000 people. Schoolhouse to be erected there and other improvements planned. Projected railway from Galman to Paseo de los Indios, in the Chubut, will probably not be begun until 1911. Wool industry of this territory rapidly developing. Representatives of the United States mining companies to investigate mineral possibilities of this little-known part of South America. During first two weeks of July, 1910, 98,852 quarters of chilled meat arrived at London from River Plate—record for South America. Price of meat rising in Argentina as result of continued increase in exports. San Juan Serrezuela railway was opened Aug. 7, 1910; Central Northern Railway is planning to extend its line from La Banda to Santiago del Estero. Portland cement factory opened at Rodriguez del Busto on Cordoba North Western Railway. In 1904 revenue of Argentina did not reach \$80,000,000 United States currency; five years later it reached \$116,000,000—an increase of some 45 per cent in five years. New rapid service between Buenos Aires and Rosario will be inaugurated Sept. 1, 1910—only five hours needed for journey. Work being pushed on railway from Bahia Blanca to Carmen de Patagones. Extreme southern part of Province of Buenos Aires appears to be developing rapidly. Steamship "Natal Transport" launched for Empire Transport Company (Limited), London, for River Plate Cargo service, on May 9, 1910.	Aug. 23	Do.
Argentine foreign trade, first six months of 1910.	Aug. 25	Do.
Trade notes on Bahia Blanca: First section of highway being built by Province of Buenos Aires between Avellaneda (suburb of city of Buenos Aires) and Bahia Blanca opened as far as La Plata. Will be used extensively for motoring. 559,346 tons wheat exported from Bahia Blanca from Jan. 1 to Sept. 1, 1910. Bahia Blanca continues to be largest South American wheat-shipping port. Land in business section of Bahia Blanca now selling at \$22 United States currency a square yard, and is rapidly rising in value. Italc-Argentine Navigation Company planning to run line of 4 steamships of various classes between Genoa and Bahia Blanca direct, run to be made in eighteen days. Bahia Blanca now distributing center for region containing 3,286,611.95 acres sown with wheat, 105,000 sown with linseed, 610,100.74 with corn, and 516,658.11 with oats. More oats shipped from Bahia Blanca than from any other Argentine port during first eight months of 1910, 157,436 metric tons, as compared with 113,920 from Buenos Aires and 22,850 from La Plata.	Sept. 3	Do.

REPORTS RECEIVED TO OCTOBER 15, 1910—Continued.

Title.	Date of report.	Author.
ARGENTINA—continued.		
Opening of new hotel at Bahia Blanca.....	1910. Sept. 5	R. M. Bartleman, Consul-General, Buenos Aires.
Trade notes: Governor of the Chubut Territory has distributed large numbers of American graphophones among remote army garrisons and post-offices in his district. Some American schoolbooks were among last consignment to schools in Argentine Tierra del Fuego—the southernmost schools in the world. Argentine Government directed Dr. Eliseo V. Segura to study during his coming journey in Europe the best means of legislation regarding school hygiene, especially adenoid tumors, hypertrophy of the tonsils and auricular alterations. Commercial and an industrial high school were founded at La Plata, Aug. 31, 1910. New suburban service of the Anglo-Argentine Tramway Company to Villa Devoto, in suburbs of Buenos Aires, opened on Sept. 5, 1910—run is made in forty-five minutes. Municipality of Bahia Blanca is contemplating withdrawal of its loan of \$1,000,000 Argentine paper (\$424,600 United States currency) now in circulation, substituting therefor one which will probably be about \$3,400,000 United States currency, to be used for public works.	Sept. 7	Do.
American elevators in Argentina.....	Sept. 9	Do.
BRAZIL.		
Cultivation of cotton and manufacture of cotton goods.....	Aug. 6	P. Merrill Griffith, consul, Pernambuco.
Tree cotton in Brazil.....	Aug. 16	J. J. Slechta, vice-consul-general, Rio de Janeiro.
Wireless telegraph station established near Bahia.....	Aug. 18	S. P. Warner, consul, Bahia.
Comparative statement of declared exports from Bahia, Brazil, to the United States during first six months of calendar years 1909 and 1910.	Aug. 20	Do.
Discovery of coal at Pernambuco, Brazil.....	Aug. 27	P. M. Griffith, consul, Pernambuco.
Trade of Brazil for first half year in 1910.....	Aug. 29	E. Lay, consul-general, Rio de Janeiro.
CHILE.		
Trade and industrial notes: During 1909, 845,093 pounds olives grown in Chile. During 1909, 7,142,718 pounds cheese made in Chile. There are 6,743,052 acres of forest located in Chile, principally south of the thirty-fifth parallel. There are 2,572,457 acres of irrigated lands in Chile, and 2,169,360 acres susceptible to irrigation. A syndicate of capitalists of Holland sent two expert engineers into country adjacent to Punta Arenas to study mineral resources of that part of Chile. During 1909, 2,611,941 pounds of figs were grown in Chile, great portion grown in Provinces of Atacama and Coquimbo. During 1909, 12,616 more acres of vineyards were under cultivation in Chile than in 1908, with increased production of 5,744,391 gallons of wine over that year. During first six months of 1910, the receipts of government railroads of Chile were \$5,126,692 United States gold, against \$4,667,482 for 1909, while expenses for same period for 1910 were \$5,741,524 United States gold, against \$5,567,883 for 1909. Receipts of Chilean Government for 1909 amounted to \$51,711,155 United States gold, with an expense account of \$56,180,977, leaving a deficit of \$4,467,522 United States gold for the year.	Aug. 9	A. A. Winslow, consul, Valparaiso.
Studying revision of tariff.....	Aug. 23	Do.
Telegraph line to Punta Arenas.....	do.	Do.
Trade and industrial notes: Petroleum of high grade has been found in paying quantities in vicinity of Carelmapu, Chile, at a depth of 534 meters, or 1,764 feet. Law enacted by Chilean Congress authorizing coinage of 5,000,000 pesos or \$1,825,000 United States gold worth of 50 centavos and 1 peso pieces, of 6 and 12 grams each in weight. There are 145,894 acres of vineyards in Chile, 47,403 on irrigated land. Wine production for 1909, 254,046,959 gallons. Chilean Government has 1,677 miles of railroad completed, 1,346 miles under construction; private interests have 1,920 miles complete and 106 under construction—total, 3,023 miles completed railways and 2,026 miles under construction. When Arica to La Paz railroad is completed—should be in eighteen months—time from Pacific coast to La Paz will be reduced for passengers from twenty-three to fourteen hours; for freight from four days to twenty-five hours.	Aug. 24	Do.
Imports by parcel pos.....	do.	Do.
Chinchillas in Chile.....	Aug. 30	Do.
Importation of petroleum.....	do.	Do.
New cathedral in Valparaiso.....	Sept. 6	Do.
How to get more Chilean trade.....	do.	Do.

REPORTS RECEIVED TO OCTOBER 15, 1910—Continued.

Title.	Date of report.	Author.
CHILE—continued.		
Trade and industrial notes: Plans out for new theater at Valparaiso. Salt beds of Chile could supply world with salt for ages to come. Salt found in large bodies 99 per cent pure and only needs grinding for table use. Chilean Government has appointed commission of 9 members to study patent laws with view to recommending changes that will bring them down to date inconformity with patent laws of leading countries. Consumption of nitrate in the world for first eight months of 1910 amounted to 2,125,232 tons, against 1,718,270 tons for 1909. Superintendent of customs at Valparaiso has increased hours during which freight can be landed at custom-house docks, and has reduced the time packages must be in custom-house before they can be withdrawn.	1910. Sept. 7	A. A. Winslow, consul, Valparaiso.
CUBA.		
Sale of collars and cuffs at Cienfuegos.....	May 5	M. J. Baehr, consul, Cienfuegos.
DOMINICAN REPUBLIC.		
New revenue stamp law of Dominican Republic.....	Aug. 20	Henry P. Lewis, consul-general, Santo Domingo.
Law establishing legal rate of interest.....	Aug. 23	Do.
Report on urgent need of good hotels.....	Aug. 29	P. E. Holland, consul, Puerto Plata.
Cotton planting in consular district of Puerto Plata.....	Sept. 7	Do.
Butter market in Dominican Republic.....	Sept. 12	Do.
HONDURAS.		
New chamber of commerce.....	Aug. 22	A. T. Haberer, consul, Tegucigalpa.
Demand for sporting goods.....	Aug. 25	Do.
Report on trip to the Departments of Comayagua and La Paz.....	Sept. 1	Do.
Port charges, facilities for handling cargoes, and other matters concerning the importation of merchandise.....	Sept. 29	Claude I. Dawson, consul, Puerto Cortes.
MEXICO.		
Garbanzos, market and use.....	July 27	A. V. Dye, consul, Nogales, Sonora.
Report on import duties, tariff, and immigration laws of Mexico.....	Aug. 8	Wm. W. Canada, consul, Veracruz.
Article on Tapachula.....	Aug. 11	A. W. Brickwood, consul, Tapachula.
Fiber plants, Palmillo and Pochote, possibilities for commercial use.....	Aug. 16	A. V. Dye, consul, Nogales.
Refrigerators.....	Aug. 17	Sam. E. Magill, consul, Guadalajara.
Foreign capital invested in district of Guadalajara.....	Aug. 23	Do.
New Mexican Railroad, Durango to Gutierrez.....	Aug. 24	C. M. Freeman, consul, Durango.
Photographic views of scenes in Tampico consular district.....	do.	C. A. Miller, consul, Tampico.
Territory of Tepic, Mexico.....	Aug. 25	Sam. E. Magill, consul, Guadalajara.
Citrus fruits and sugar, and fiber plants.....	Aug. 29	L. G. Ellsworth, consul, Ciudad Porfirio Diaz.
New Mormon town, Victoria.....	do.	Do.
Inaccurate documenting of shipments.....	Aug. 30	W. W. Canada, consul, Veracruz.
Good business in electric goods.....	do.	Do.
Karakule sheep raising in Mexico.....	do.	L. G. Ellsworth, consul, Ciudad Porfirio Diaz.
Guayule, a rubber-producing growth.....	do.	Do.
Railway projects in State of Zacatecas.....	Sept. 7	A. Donaldson Smith, consul, Aguascalientes.
Shippers should add the name of State in addressing customers in Mexico.....	Sept. 9	Alexander V. Dye, consul, Nogales.
Concession to work soda beds.....	Sept. 12	Do.
Port charges, facilities for handling cargoes, and other matters concerning importation of merchandise into foreign countries.....	Sept. 14	W. W. Canada, consul, Veracruz.
Commerce and industries: Cotton in district of Matamoros and agriculture in general.....	Sept. 20	J. H. Johnson, consul, Matamoros.
Concession for supplying gas to cities of Puebla and San Luis Potosi.....	Sept. 21	A. V. Dye, consul, Nogales.

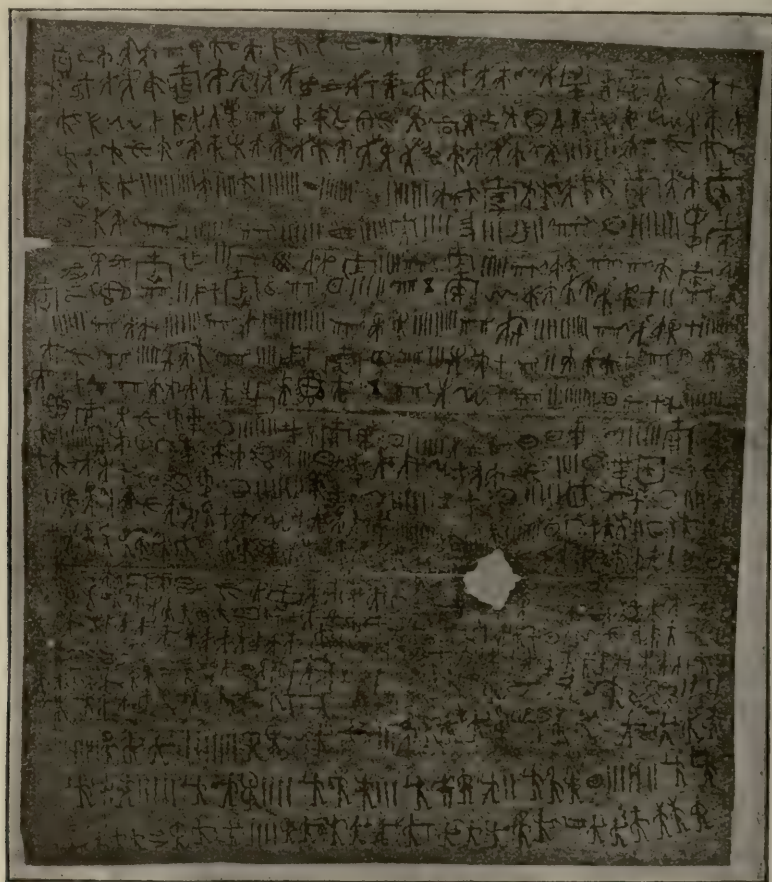
REPORTS RECEIVED TO OCTOBER 15, 1910—Continued.

Title.	Date of report.	Author.
MEXICO—continued.		
Industrial notes: Chicago capitalists purchased extensive tract of land near Colorado River, and large sums to be expended in irrigation and improvement. Cotton to be principal crop grown. Leases signed for large tracts of land near Ensenada for boring for oil; good indications reported. Negotiations by New York capitalists under way for purchase of promising gold-mining claims near Alamo, Lower California. Thrifty American farmers beginning to settle in that section; will result in increased demand for agricultural implements. Effort being made to excite interest in good roads.	1910. Sept. 22	G. B. Schmucker, consul, Ensenada.
Grain importations.....	Sept. 23	C. A. Miller, consul, Tampico.
Founding of new town, opportunity for exporters.....	Sept. 24	G. B. Schmucker, consul, Ensenada.
Banana culture in Sinaloa.....	do.....	Charles B. Parker, vice and deputy consul, Mazatlan.
Construction planned by National Railways of Mexico in San Luis Potosi, Mexico.	Sept. 23	Wilbert L. Bonney, consul, San Luis Potosi.
Importations for six months ending June 30, 1910.....	Sept. 30	L. G. Ellsworth, consul, Ciudad Porfirio Diaz.
Metal building material.....	do.....	C. M. Freeman, consul, Durango.
PARAGUAY.		
Advancing the interests of industrial Detroit.....	June 18	Cornelius Ferris, jr., consul, Asuncion.
Demand for electrical appliances.....	Aug. 6	Do.
Sale of rope and twine in Paraguay.....	Aug. 19	Do.
The study of English in Paraguay.....	Aug. 23	Do.
SALVADOR.		
Customs tariff system of Salvador.....	Aug. 22	T. E. Dabney, consul-general, San Salvador.
URUGUAY.		
Abstract and translation of regulations governing Uruguayan stamp tax on medicines.	July 30	Frederic W. Goding, consul, Montevideo.
Merchant marine of Uruguay.....	Aug. 26	Do.
American furniture in Uruguay schools.....	Sept. 3	Do.
Advertising in Uruguay.....	Sept. 10	Do.
VENEZUELA.		
Annual report of commerce and industry in Venezuela.....	July 2	I. A. Manning, consul, La Guaira.
Concession for exploitation of asphaltum, petroleum, naphtha, etc., to American corporation, in Venezuela.	July 21	Do.
Tariff changes in Venezuela.....	Aug. 14	Do.
Venezuelan Congress approves a banana concession.....	do.....	Do.
Seed station established.....	do.....	Do.
Public improvements in Venezuela.....	do.....	Do.
Probable development of oil fields in Venezuela.....	Aug. 16	Do.
Watches in Venezuela.....	Aug. 20	Do.
Rope and twine.....	do.....	Do.
Electric railway contract approved.....	Aug. 23	Do.
Contract of 1908 for the canalization of various rivers in Venezuela approved by Congress.	Aug. 24	Do.
Port charges, facilities for handling cargoes, etc., at La Guaira and Carupano.	Aug. 27	Do.
Iron-mine concession granted German capitalists.....	Aug. 29	Do.
Port charges, facilities for handling cargoes, etc., at Ciudad Bolivar.	Sept. 2	A. Leefmans, vice-consul La Guaira.
The palm-fiber industry.....	Sept. 10	Ralph J. Totten, consul Maracaibo.

BOOK NOTES

"The Islands of Titicaca and Koati." By ADOLPH F. BANDELIER. Published by the Hispanic Society of America. New York, 1910. XVII, 359 p. 8 vo. Price \$5.

This is far and away the best work that has yet appeared on the reputed cradle of the Inca race. The veteran archaeologist, ADOLPH F. BANDELIER, who is so well known to the world of science for his brilliant investigations among the native races of new



"INDIAN PICTOGRAPH" FROM BANDELIER'S "THE ISLANDS OF TITICACA AND KOATI."

Mexico, Arizona, Mexico, and Central America, has in this chef d'œuvre of exhaustive and conscientious research given us the last word on the history, traditions, folklore, and myths which make Titicaca and Koati the most interesting spots not only in Peru but in South America. The volume is beautifully illustrated with 85 plates, many of them colored, and several valuable maps which greatly aid the reader in following the narrative. The views of the ruins and other objects on these sacred islands of the Incas, as well as those of the natives who still inhabit them and who retain



ILLUSTRATION FROM DOCTOR BANDELIER'S BOOK, "ISLANDS OF
TITICACA AND KOATI."

Golden ornaments of Inca workmanship representing the llamas, their beasts of burden.

many of their primitive customs and costumes, fetishes, and superstitions, will appeal in a special manner to the reader of this masterly monograph.

Mr. and Mrs. BANDELIER spent nearly seven months on the islands of Titicaca and Koati, engaged in the work of exploration and excavation, and their labors were rewarded by the discovery of many objects of the greatest archæological interest. These may now be seen in the Museum of Natural History of New York.

But valuable as are the illustrations and text, that which students and scholars will most highly appreciate is the splendid array of documentary authority with which each chapter is provided. By means of the quotations from the early Spanish chroniclers the reader is able to confirm the conclusions of the author in a way that would otherwise be difficult if not impossible.

As a sample of the character of the author's work, and of the thorough manner in which he supports his deductions, we would refer the reader to what he says about the Acclahuasi—the so-called Virgins of the Sun. According to the statements of those "who saw Indian society in Peru in its primitive condition," these females, far from being like Roman vestals, and farther still from being like the nuns of the Catholic Church, "were in fact a tribute in women exacted by the Cuzco tribe, and chastity on their part was not obligatory upon them." It "was only relative and not absolute," as the author clearly proves by indisputable evidence.

More surprising still, to those who yet cling to the idea that has so long prevailed regarding the inviolate vestal character of these Acclahuasi, is the statement of the author that "The buildings in which such women were kept under guard were neither more nor less than storehouses sheltering a tribute in women * * *. It may be that, as some of the recluse women were occasionally sacrificed, they were kept virgins for that purpose.

The extensive bibliography at the end of the volume greatly enhances the value of this truly meritorious work.

"Following the Conquistadores: Up the Orinoco and Down the Magdalena." By H. J. MOZANS, A. M., Ph. D. D. APPLETON & Co. New York, 1910. XIII, 439 p., with map, illustrations, and bibliography. 8vo. Price, \$3.

It is strange, but it is true, that the part of the mainland of South America which was first discovered by Europeans is the part which is still least known. A century ago, it is true, HUMBOLDT and BONPLAND traversed certain portions of the territory now known as Venezuela and Colombia, but Doctor MOZANS is the first writer who has crossed the continent by sailing up the Orinoco and the Meta and descending the Magdalena. Such a journey has usually been supposed to be one of extreme difficulty and danger, but Doctor MOZANS has shown us that one can make it with comparative ease and pleasure, and that the dangers to be apprehended from savage Indians along the Orinoco and the Meta are entirely imaginary.

Doctor MOZANS is an experienced traveler, a keen observer, and one who is thoroughly familiar with the history of the country he describes. He is also the master of a brilliant style, which gives to his narrative all the fascination of a romance. Indeed, in no work on South America that we have seen is there such a combination of scholarship and style, such a presentation of countless facts on every topic in a form so entertaining and so instructive.

But more marked than these features of the volume are the discrimination, insight, and sympathy which it reveals in dealing with the inhabitants of the countries traversed by the author. While not blind to their shortcomings, he is ever ready to give them credit for their many noble qualities of heart and mind and for their splendid achievements in every sphere of endeavor.

The book is more than a mere record of travel and adventure. It is replete with information on the social, economic, and political conditions of the countries visited.

It tells of their marvelous natural resources, of the inexhaustible treasures of forest, mine and plain, of the splendid openings awaiting the investor in these unknown lands, and of the boundless *llanos* which are capable of supporting millions of cattle, and which could easily be put within easy access of our Atlantic and Gulf ports.

In addition to this it touches on some of the most notable events in the history of Venezuela and Colombia and notes some of the most interesting phases of the "War of Independence" and of the career of SIMON BOLIVAR, the Liberator of South America. It recounts briefly the labors of the early explorers and missionaries, and pays a generous tribute to the splendid achievements of the *Conquistadores*, those marvelous men whose daring adventures and deeds of high enterprise savor rather of oriental fable than of sober history.

The chapter on "The Athens of South America," as Bogota has long been called, will be a revelation to those who have been wont to consider the capital of Colombia simply as a hotbed of revolution instead of a center of education and culture. It will also, we think, be a revelation to some to learn that the *Colegio del Rosario of Bogota*—La



CHAMPAN ON THE MAGDALENA RIVER, COLUMBIA.

This craft is in use on the upper Magdalena River. The champans sometimes traverse the entire length of the Magdalena from Paez, a town 600 miles inland, to Barranquilla, near the river's mouth. These boats are long and narrow, with a bamboo covering, circular in form, affording protection from sun and rain. From 15 to 18 men are required to push one of these crafts against the stream.

Gloria de la patria," as the people call it—antedates the foundation of Harvard College by a century, and that the first astronomical observatory in the Tropics is located in Colombia's fair capital.

While recounting the wonders of the exuberant forests of the Orinoco basin and of the sublime scenery of the Cordilleras, and dilating on the limitless possibilities of industrial and commercial development in the two republics bordering the Caribbean, Doctor MOZANS exhibits the intelligent interest of a naturalist, the enthusiasm of a poet, and the intuition of a trained man of affairs. Indeed, so much is his book in line with all that the BULLETIN stands for that we can most cordially recommend it as a volume that our readers will be glad to have in their libraries. Not since the appearance of HUMBOLDT'S "*Personal Narration of Travels in the Equinoctial Regions of America*" has the fertile and romantic region of *Tierra Firme*—the scene of the exploits of some of the most illustrious of the *Conquistadores*—been so fully and so vividly described as by Doctor MOZANS in his instructive and fascinating volume "*Up the Orinoco and Down the Magdalena*."

"Fièvres Intertropicales, Diagnostic Hématologique et Clinique" (Intertropical Fevers, Hematologic and Clinical Diagnostic) by Dr. LÉON AUDAIN, former house physician of the hospitals of Paris, Director of the Laboratory of Clinical Hematology, Parasitology, and Bacteriology of Port au Prince, Haiti, in collaboration with CH. MATHON, B. RICOT, G. DALENCOUR, V. LISSADE and P. SALOMON. Published by J. VERROLLOT, 96 rue Roux Port au Prince, 1910. 1166 p. Size 10x6 $\frac{1}{4}$ inches.

The Library of the Pan American Union has recently received an exhaustive and scientific treatise on intertropical fevers written by the eminent Haitian physician M. LÉON AUDAIN, in collaboration with CH. MATHON, B. RICOT, G. DALENCOUR, V. LISSADE, and P. SALOMON.

In this work, which is published in French under the title of "Fièvres Intertropicales, Diagnostic Hématologique et Clinique," the author has made a deep study of the symptoms, causes, and effects of the various fevers which are to be found in tropical countries.

The work of M. AUDAIN and his collaborators has been paid unusual tribute by the Haitian Government, which has just passed a law authorizing an appropriation of \$1,500 in recognition of their publication of this valuable addition to medical science and requesting that 25 copies be placed in the Library of the Medical School at Port au Prince for the use of its students.

"The Mining Laws of Mexico," containing a translation, by RODOLFO REYES and FREDERICK F. BARKER. Mexico. The American Book and Printing Company, 1910. IV, 177 p. Size 4 $\frac{1}{2}$ by 7 $\frac{1}{2}$ inches.

Most useful to anyone interested in mining properties in Mexico, covering as it does the legal side of this question thoroughly. Although the new mining law is based on that of 1892, still there are certain changes that make the appearance of this book timely: The paragraph treating of the rights of foreigners may be summarized as follows:

Within a zone of 80 kilometers along the frontier foreign individuals can not acquire mines without a special permit from the President of the Republic. Within the same zone foreign companies can not acquire mines at all. Where such property is inherited or received under a judgment for debt, it must be sold within one year, unless, in the case of an individual creditor, the special permit is secured. Articles 136 to 144.

The book is neatly bound and of convenient size, two good points in a work of this character.

"Monumentos prehistóricos de Tiahuanacu." La Paz, Lit. de J. M. GAMMARRA, 1910. XI, 120, IV. (With appendix: "Guía para el visitante de los monumentos prehistóricos de Tiahuanacu é Islas del Sol y la Luna (Titicaca y Koati).") Por ARTHUR POSNANSKY. 105 p. fold. map. Plates. Size 5 $\frac{1}{2}$ by 8 $\frac{1}{2}$ inches.

As indicated in the preface, this volume was compiled so as to put certain information in the hands of visiting members of the Congress of Americanists, who, having met in Buenos Aires, interrupted the journey to their second meeting place in Mexico City by a visit to the environs of Tiahuanacu. The book is a collection of the opinions of historians, explorers, and travelers who have visited this most interesting region, combined with a guide and map of the ruins of Tiahuanacu. This volume should enable the visitor to get a comprehensive and intelligent acquaintance with the ancient city very rapidly.

"The Lawyers' International Blue Book," * * * Compiled by WILLIAM C. SPRAGUE. * * * (Detroit, 1910.) VIII, 364 p. Size 6 by 9 inches. (Text in English, French, German, Spanish, and Italian.)

This book contains the names of reliable legal representatives throughout the world, and includes those of Central and South America and Mexico.

"Health Progress and Administration in the West Indies," by Sir RUDERT W. BOYCE.
 * * * New York, E. P. DUTTON & Co., 1910. XV, 328 p. Maps. Plates.
 Size 6 by 9 inches. Price \$3.50.

This book is after a fashion somewhat similar to the work of the author entitled "Mosquito and Man," which was extensively reviewed in these columns some months ago. The volume is an investigation of recent yellow-fever epidemics in British possessions in the West Indies, and the author's conclusions are of importance in their relation to methods used for the checking of this now fortunately controlled scourge of the Tropics. In view of the esoteric atmosphere that surrounds the study of medicine, it is refreshing to meet with a well-known authority on medical science and a specialist in tropical sanitation who advocates popular education as a means of promoting health. Although the author confines himself to education as a means of preventing yellow fever, we can not see why the same principle would not hold good if applied to prophylaxis generally. The medical profession guards so jealously its secrets of learning that one is sometimes tempted to suspect this secrecy is really no more than a cloak to mask ignorance.

Sir RUDERT BOYCE's theory that disease follows the trade routes seems to be founded on fact, and if this is so it only emphasizes the importance of sensible quarantine regulations rigidly enforced. The laws of quarantine, however, should be administered justly and equitably, and circumstances should never arise wherein one State could reproach another with the enforcement of sanitary regulations as an act of reprisal, and officers intrusted with the administration of sanitary regulations should be punctilious in their duties but courteous in the treatment of travelers.

Recent experience has proved that sanitation will reclaim millions of acres of the world's surface hitherto considered uninhabitable. Therefore, all investigation that will increase our knowledge along this line would receive every support. However, the countries that are unfortunately liable to visitations of yellow fever should be scrupulously careful in all statements relative to its extent and probable origin. We are not convinced that the author is correct in his theory of the origin of the last epidemic in Port of Spain.

The book contains a number of interesting appendices, one of the most instructive being that on the health progress in the Republic of Cuba and Porto Rico.

The volume is attractively bound and illustrated, and is written in a style that should interest both the lay and scientific mind.

"A First Spanish Book," by H. J. CHAYTOR. * * * London, EDWARD ARNOLD (1908). VIII, 214 p. Size 5 by 7½ inches. Price 80 cents.

The excellent arrangement of this grammar merits special recognition, as grammar in itself is essentially difficult. The character of the work is somewhat out of the ordinary, as the author claims for his special object the training of the student to an appreciation of Spanish literature. He is to be congratulated upon the very practical way in which this is accomplished.

The industrial development in Latin America (Die Entwicklung der Fabrikindustrie im lateinischen Amerika). By VON GEMMINGEN. Halle a. S. GEBAUER-SCHWETSCHKE DRUCKEREI, 1910. Price, 4 marks.

This volume, one of a series of applied geography published by the same company, is an extensive essay presented as a dissertation for the degree of doctor of philosophy of the University of Leipzig. The subject is studied with the thoroughness of the German; conditions of geography, history, and race are analyzed; then are given the present status of commerce, finance, and natural productiveness in all of Latin America. Details concerning each country are not attempted, but a broad distinction is made

between the complete tropical areas; those which, like Mexico and Peru, are largely in the Tropics but with portions at a high altitude, and those which are in the Temperate Zone. The author's conclusions are that for long years to come the completely tropical areas will have no essential factory or industrial life of their own, but that the other countries are encouraging the development of local industries which will soon be able to meet the requirements of local markets, and thereby lessen the necessity of depending upon foreign manufacturers for the supplies demanded by advancing civilization. An appendix is given, presenting in considerable detail the industrial status of Argentina and Chile.



COVER PAGE OF THE SPECIAL EDITION OF "LA NACION" OF BUENOS AIRES, ISSUED IN HONOR OF THE CENTENARY CELEBRATION.

WHAT IS IN THE MAGAZINES

"Recent Progress at Panama," by FULLERTON L. WALDO, F. R. G. S., in "*The Engineering Magazine*," for October, is an article which shows how bright are the prospects for completing the Isthmian waterway within the projected period.

Mr. WALDO describes briefly the present condition of the canal and the way the work is being carried on. An unusual incident that will give one some idea of the forces man has bent to his will in this great work is shown in the following paragraph:

An illustration of the rate at which the hydraulic dredges are now working at Gatun is an episode that occurred a few hours before our visit. One of the sturdy Gallegos Spaniards, who bear the brunt of the more exacting labor, was sucked into the voracious opening of a 16-inch pipe line. Two fellow-workmen grabbed him, but he was torn from their hands. In sixty seconds he was carried 265 feet and poured out, gurgling and gasping, on the river's bank. Within a few hours he was back at work again, none the worse for his jarring experience.

So much has been written about Culebra Cut and the landslides that sometimes delay the excavations being carried on there, the very word "landslide" seeming to carry sinister significance to the untechnical reader, that what the author has to say in this regard is most reassuring:

Besides the Gatun Dam with the locks, the other great factor upon which the completion of the canal by 1915 depends is, of course, the Culebra Cut. A great deal of nonsense has appeared in print in the United States about the Cucaracha and other slides. Reference to the "1909 Report of the Canal Commission" will show that the engineers anticipated slides to the extent of about 4,000,000 cubic yards in the Central Division. They have now generously enlarged their estimate to 7,000,000. Suppose the completion of the canal should be delayed two months by these untoward happenings. What is two months when mankind has waited for four centuries! Standing on the wooden suspension bridge thrown across the cut at Empire one finds it hard to believe that the excavation of such staggering dimensions is the work of man aided by his own "mechanical extension of his powers." It seems as though it must be the work of convulsive natural forces. If nature here and there shows herself stubbornly opposed to the invasion of drill and shovel, the greater the eventual triumph of man over nature. One of the slides occurred the night before we came to Culebra, and the next day we saw a shovel, with dirt trains in assiduous attendance, eating out the heart of it. It was a big slide, a slide that worried the heads of the work, and yet no layman could have seen what there was to make such a fuss about. To read some of the saffron-tinted journals, a "constant reader" 2,000 miles from the spot would be almost sure to believe that the walls of the cut from top to bottom were caving in. On the spot there seems to be practically nothing the matter. Moreover, if at the usual angle the earth refuses to stand still, there is no reason why the surface should not be given an outer integument of rock, and in due time the intertangled roots of tropic plants and trees luxuriantly growing will themselves form a sufficient natural protection. Meanwhile, a few of the older houses will have to be moved back from the brink—but what of that. Some of them must be shifted anyway, because the Americans have planned more liberal dimensions than those contemplated thirty years ago by the French engineers.

The description of the spirit with which the work is being undertaken merits our closest attention, as it is the barometer that indicates to all those interested that the greatest engineering feat of any age will be completed on time:

The most convincing exhibit at Panama is the character of the working population itself. There were good men in the Isthmus in 1907, plenty of them, with "their souls in the work of their hands" and the useful knowledge of the schools in their heads, plus the fruition of valuable experience elsewhere. But in 1910 the laborers in all particulars worthy of their hire are excessively in the majority, where formerly they were merely numerous. They have brought their families to the Isthmus, secure in the knowledge of healthful surroundings, good schools, a generally moral environment, social diversions, and a thoroughly satisfactory commissariat. The number of gardens in three years has increased greatly. The people really seem to care to make their dooryards beautiful. Panama begins to appear like home to them. They are not merely biding their time, in durance vile, until the six weeks' annual vacation. Every kind of fraternal organization that flourishes in the United States has taken firm root upon the Isthmus. The baseball rivalry is as fast and furious as that of the stean, shovels. There is a splendid opera house in the

city of Panama, opened in November, 1908, with a brilliant performance of "Aida." Whereas there were but two automobiles three years ago, the passing of the "benzine buggy" to-day arouses no comment. The millions of vitrified brick have made Panama by all odds the best paved city between the capital of Mexico and Buenos Aires. The railroad that is building westward to David, in the Province of Chiriqui near the frontier of Costa Rica, will be an important link in the Pan-American Railway that is as sure to come as the Cape to Cairo Railway, and when this great international highway is completed it will be possible to go by rail from New York to Panama in something like the time the steamships now require—though the distance overland is two and one-half times as great. In the meantime there is no room for any but an optimistic opinion in the mind of every American as to the present and the future of the Panama Canal.

"South America's First Transcontinental," a journey over the line of the first railroad to pierce the Andes—Buenos Aires to Valparaiso by air line instead of the dangerous Straits of Magellan, by CHARLES WELLINGTON FURLONG. In this article, appearing in *"The World's Work,"* for October, we have another story of the route of this iron band that binds these two great South American countries. There is no question but that the greatest field for future railroad development is in this section of the earth's surface. In this connection a résumé of the early work on the South American continent is interesting. Mr. FURLONG says:

Two natural systems of railroad routes suggest themselves as one looks over the great kite-shaped continent of South America—the longitudinal from Panama to Magellan Strait, and the transcontinental routes from ocean to ocean. Already more than half of the longitudinal mileage is in operation in Chile and Peru and three-tenths in Argentina.

The history of South American railroad development is preeminently a tribute to American engineers and captains of industry.

WILLIAM H. ASPINWALL in 1850 turned his attention to the building of the Panama Railroad—a desperate and dramatic undertaking. Five years later the last rail was laid and the forerunner of the Panama Canal completed. His contemporary, WILLIAM WHEELWRIGHT, "rounded the Horn" about his time and left his name indelibly engraved in the engineering annals of Chile; so great was his record that Chileans have linked it with that of MAGELLAN.

To HENRY MEIGGS can be attributed 42 miles of road between Valparaiso and Santiago, Chile—the first lap of the transcontinental line. On the other side of the continent GEORGE E. CHURCH surveyed and located the Great Northern Railway of Buenos Aires. Other Americans were doing much to forward railroad projects in South America, and BENJAMIN F. BATES had no less than 15 routes surveyed across the northern Andes at his own expense.

MEIGGS turned his attention to Peru. Six important roads were actually constructed, and practically the whole railroad system of that country is an outcome of his indomitable perseverance. His greatest work, however, is the famous Pacific and Trans-Andean Callao, Lima, and Oroya Railway. This remarkable engineering feat, known as "the railroad among the clouds," culminates in a tunnel 3,848 feet long and 15,645 feet above sea level—less than a stone's throw lower than Mont Blanc—and is the highest railroad in the world.

Colonel CHURCH meantime, at the request of South American Governments, surveyed railroads through the upper Amazon, finally resulting in the Madeira and Mamore Railway, now nearly completed.

Another American whose name will stand in the forefront in the annals of South American industry is that of WILLIAM R. GRACE. It was under the "Grace contract" that the Oroya road was finished; and now, under a second "Grace contract," another section of the great transcontinental railroad (the Trans-Andine Railway) is finished.

As to the character of the country through which this railroad passes, the author has this to say:

The 888 miles of this big transcontinental railroad run across three topographically different natural divisions—over level pampas from Buenos Aires to Mendoza for 650 miles; through mountain regions from Mendoza to Los Andes, 160 miles; and the remaining 78 from Los Andes through the Valle Central region of Chile to Valparaiso. The line is also divided into three management divisions—the Buenos Aires and Pacific, the Trans-Andine, and the Chilean State.

The article then describes most picturesquely the author's first trip across the pass, between Argentina and Chile, when the journey was undertaken in an old-fashioned stage coach, and compares the vicissitudes of the voyage in that day with the comparative comfort of the undertaking at present.

In conclusion, he says:

And now the last tie has been laid, railhead has ceased to be, the first South American transcontinental line is finished, and since the 5th of last April trains have thundered through the heart of the Andes.

Not only does it pass through the richest agricultural sections and some of the most important inland cities of Argentina and Chile, but it connects their two capitals and its termini are respectively at their two largest and most important ports.

It occurs in latitude practically on an air-line route between Cape Town and Melbourne, which may be of great future importance. It substitutes for ten or eleven days by sea through treacherous straits and the stormy Pacific a journey of thirty hours in well-appointed trains and through some of the most wonderful scenery in the world, thus bringing Chile nearer to Paris and to London by at least nine days, augmenting the carrying capacity between Buenos Aires and Valparaiso, increasing comfort of travel, and decreasing time and risk attendant upon the Straits route.

This line is easily accessible to future possible tributary lines north and south, and serves to bring the vast products of grain and cattle to the coasts. The similarity of Chile's and Argentina's products necessitates a commercial treaty between these countries now that this new line of transportation is in operation, and that, I understand, is already under consideration.

On these sublime heights we stopped by a boundary standard bearing an iron plate—"CHILE" read the simple letters on one side, "ARGENTINA" on the other. As I looked away over those sharp-pointed Andean peaks—vertebræ of a hemisphere which have defined tribes and divided peoples—the sky lines of their jagged profiles lowered below the horizon of my imagination and showed me a vast continent of 6,837,000



MEDAL STRUCK BY THE ARGENTINE GOVERNMENT IN HONOR OF THE CENTENNIAL.

square miles spread out, over double the area of the United States and Alaska, yet with a population of only 45,000,000 inhabitants.

One more strand of steel to help girdle this old world is done. The fight of more than a third of a century against almost insurmountable difficulties has been accomplished, and the cost in time, money, and lives has been totaled—thirty-seven years of toil, millions of expenditure—but the lives are not down on the balance sheet.

Now the tunnel work is cleaned up; the left-over supplies have been sold; the peones have tramped their way for the last time down the rocky trail in the first winter snows, and a few scavengers will hang around to pick clean the camps.

Far up among those lonely crags on the crest of the Cumbre, deserted and isolated, storm-swept and glistening in its lonely dignity, stands the figure of the Christ.

"Sooner shall these mountains crumble into dust than the people of Argentina and Chile break the peace which they have sworn to maintain at the feet of Christ the Redeemer" Argentina and Chile have sculptured at its base. The drifting snows will have covered the rock-hewn words, but the spirit and ideal for which it stands will ever breathe its blessing on all mankind through the pure crystal winds which sweep down from it.

The little toy cars will continue to creep their way up the vast valleys and through the heart of the great mountain. So we have seen the completion of the great South American trans-continental railroad, a tremendous work, but only a factor in the greatest propaganda that has ever existed—the booming of a continent.

"**Scenery of Cuba**," by I. A. WRIGHT, the leading article in "*The Cuba Magazine*" for September, is of such a character that it invites one to visit these vividly described sections of this beautiful island. Miss WRIGHT, who has lived a number of years in Cuba, sees the country with an appreciative eye. Her description of the view from Boniato Summit, Santiago de Cuba, brings the whole scene to mind. While we are in sympathy with her in the praise given to the Valley of Viñales, still we differ as to the theory of the formation of this country. Certain specimens of seashells have been found there, and from an examination of these it is surmised that this fertile vale was once the ocean's floor. The description of Mariel and Yumuri are really pleasing, and since the completion of good roads in Cuba, this article should tempt the northern idler to spend a winter in the island.

"**Do Pineapples Pay**," an article in the same magazine by F. J. PATTIN, shows that in spite of the fact that 1,300,000 crates of this fruit were shipped to the United States during the last year, it was with little profit to the growers, the high freight rates and prohibitive duties eating up possible surpluses. We have often wondered why it would not be possible for cultivators of this fruit to establish canneries on their properties, and in this way provide for the future marketing of the fruit despite unfavorable conditions during any one season.

"**San Rafael Anexas Mining Company, Pachuca**," by E. GIRAULT, in "*The Engineering and Mining Journal*" for October, is one of a number of articles in this magazine all dealing with the mineral situation of Mexico. Lack of space makes it impossible for us to review each one of these articles as extensively as we should wish. For the convenience of our readers we give the designations of the articles, and refer them to "*The Engineering and Mining Journal*" for further information on any subject that is of especial interest to them.

"**Analytical Methods in the Cananea Laboratory**," by F. G. HAWLEY, contains a description of the methods of routine chemical analysis used at the Cananea Consolidated Copper Company's smelter laboratory at Cananea.

"**The Altar Gold Placer Fields of Sonora, Mexico**," is a description of the rediscovery of this gold district.

"**Mining Operations in the State of Chihuahua**," by W. H. SEAMON, gives a general description of the geology of the country, and a summary of the work being done by the different companies exploiting the same.

"**Peculiar Water Problem at Candelaria Mines**," by GEORGE A. LAIRD, is of distinct technical interest to miners.

"**Mining and Smelting at Achotla Mine, Guerrero**," by W. B. DEVEREUX, Jr., describes the operations in the Balsas River region.

"**Coal and Iron Explorations in Oaxaca**," by J. L. W. BIRKINBINE, deals with the principal coal fields in the Mixteca District.

"**Mineral Resources of the State of Guerrero**," by WILLIAM NIVEN, is a good descriptive article.

"**Tales of Mountain Travel in Mexico**," by MARK R. LAMB, contains hints that would be of value to the novice prospector.

"**Mining and Smelting in Aguascalientes**," by BRUNO NEWMAN, is a brief sketch of the largest custom plant of the American Smelting and Refining Company.

"**Cupid and Jimmie Curtis**," by JULIA FRANCES WOOD, in the "*Century Magazine*" for October, is a clever story based on Latin love methods, with the scene laid in Mexico.

"The Greatest Volcanoes of Mexico," by A. MELGAREJO and S. L. WILSON, appears in the September number of the "*National Geographic Magazine*." The article is embellished with a number of new and picturesque illustrations, one of the most interesting being that of the actual top of the peak of Toluca. We infer from one of the illustrations that Iztaccihuatl was climbed. If this is so, it would be interesting to know further details of the expedition. We are compelled to take exception to the statement, which appears at the very beginning of the article, namely, that "Popocatepetl has only one superior in height on the North American continent—Mount McKinley." The latest figures available give the following heights: Mount McKinley, 20,300 feet; Mount St. Elias, 18,024 feet; Mount Orizaba (Mexico), 18,000 feet; and Popocatepetl, 17,794 feet.



(Courtesy of *The Century Magazine*.)

PECULIARLY INSCRIBED STONE FOUND BY MAJOR BURNHAM IN MEXICO.

"The Esperanza Stone," by CHARLES FREDERICK HOLDER, is an article in the "*Scientific American*" for September 10, 1910, dealing with this curious meteorite which has puzzled scientists for a number of years. Mr. HOLDER's theory that the characters on the face of the stone are of Mayan origin has a certain amount of justification, as he indicates in his text, but as there are no other traces of these remarkable people in that section of the country we are not altogether convinced as to the correctness of his statement. We would like to hear further from Major BURNHAM, the discoverer of the stone, on this subject.

"A Summer Trip to the Mountains of Mexico," by J. A. MACDONALD, in "*The Mining World*" for September 17, 1910, is a record of a prospecting trip in Chihuahua, Sinaloa.

"**Cascora, the First Cuban Siege,**" by FREDERICK FUNSTON, in "*Scribner's Magazine*" for October, is a story of the author's experiences as a filibuster during the Spanish-Cuban war.

"**A Century of Mexican Independence,**" an editorial appearing in "*The Outlook*" for October, gives a summary of the civic improvements undertaken by the Mexican Government in order to celebrate in a profitable way the Centennial of Independence.

"**The South Americans of To-day,**" a review of an article in the "*Revue des Deux Mondes*," by HENRI LORIN, which appears in the "*Review of Reviews*" for October, opens up with the following paragraph:

The advances made of late in so many varied fields by the South American peoples—in statesmanship, economics, and science—bespeak the vigorous and hopeful attitude of youth.

In our opinion this summarizes the whole South American situation.

"**Para, Manaos, and the Amazon,**" an article in "*The India Rubber World*" for October, treats of rubber gathering in this district.

"**The Railways of Brazil,**" by LIONEL WIENER, in "*Cassier's Magazine*," in which article the author describes the Leopoldina and Minas systems, is the sixth of a number of articles under the same heading.

"**Outdoor Idling in Mexico,**" by J. A. MCGUIRE, in "*Outdoor Life*" for September, a running account of a camping and hunting trip to that section of Chihuahua and Sonora which was once the home of the Cliff Dwellers. It is only recently that Mexico has come under the notice of sportsmen as a field that should be of interest to them, although the game resources of certain sections of the country have been for a long time known to prospectors. If the sportsman plans a winter trip through this country, it will amply repay him, both in the size of his bag and the variety of experiences which he will be sure to encounter in this field. Mr. MCGUIRE's account is enough to tempt one to visit the game lands of Mexico at once.

"**The Outlook of the Pan American Conference,**" by DAVID KINLEY, Ph. D., appears in "*The Independent*" for September 22. The author summarizes the work mapped out by the delegates to the recent Pan American Conference. The programme contains certain subjects that will lead to practical advancement in Latin American relations and lays stress on the fact that the conference makes possible the interchange of ideas between the delegates of the different countries, and in this way tends toward cementing the friendship and promoting understanding among the peoples of the Republics that go to make up the Pan American Union. The successful conclusion of the work of the conference shows that Professor KINLEY was in every way justified in his prophecy.

"**A Seaport of Sinaloa,**" by MINNIE ROSILLA STEVENS, in the "*Overland Monthly*" for September, is an illustrated description of the port of Mazatlan. This city, on the west coast of Mexico, standing as it does midway between the Panama Canal, which is rapidly approaching completion, and the Pacific coast of the United States, a territory daily increasing in commercial importance, is destined to become not only a prominent port of call but also, because of its railroad connections, a busy distributing point for a large radius in this section of Mexico.

"**La Republica de El Salvador,**" by D. PABLO DE BENITO, appears in the "*Boletín de la Real Sociedad Geográfica*." The author, who is Secretary of the Spanish Legation in Central America, gives a first-hand description of conditions in the small Central American Republic and describes how attractive are the possibilities for farming and cattle raising in that country.

"La Compañía Minera de San Rafael y Anexas de Pachuca," by E. GIRAULT, is contained in *"Informes y Memorias del Instituto Mexicano de Minas y Metalurgia."* A translation of a considerable part of this article appeared in the *"Mining and Engineering Journal"* for October and has already been referred to above.

"Aranceles Aduaneros. Bases de una Tarifa Internacional" and "La Ley de eslingaje. Interpretación de Algunas Disposiciones," appeared in the *"Boletín de Hacienda"* (Buenos Aires, May, 1910), the first being by Dr. ERNESTO WEIGEL MUÑOZ and the second by Dr. MARIO SAENZ. These articles are especially timely, owing to the session of the delegates at the Pan American Conference in Buenos Aires.

"La Polinización Artificial de las Flores del Cacao," by DAVID BETANCOURT in *"La Hacienda"* for September, describes the experiments in artificial polinization of the cacao plants and shows how this method will undoubtedly help to increase the output of cacao trees and bring about a considerable change in the present methods of cultivation. The article is well illustrated.

"Electrical Undertakings in the Argentine," one of the special articles appearing in the South American Supplement of *"The Times,"* London, August 30, 1910, an account of the latest improvements in the electrical line in Argentina.

The correspondent makes that mistake of designation, which is somewhat common in English descriptions of South America, of calling the Argentine Republic "The Argentine," instead of "Argentina."

To show the character of work being carried on we quote as follows:

An important electrical undertaking is that of the Buenos Aires and Pacific Railway Company of Bahia Blanca. This generating station was erected by the company for the purpose of supplying current to the docks, shunting yards, and workshops, and was originally of 3,000-kilowatt capacity, but to meet the rapidly increasing demands upon the plant a new power house is being erected. The first section will be of 5,000-kilowatt capacity, and the equipment will consist of five 1,000-kilowatt three-phase 6,000-volt generators, coupled to high-speed vertical engines. Five substations will be erected in connection with the new power house, four of which will contain static stepdown transformers, while the fifth will house the rotary converters for the tramways, the construction of which is now in hand. The South American Light and Power Company, in which the railway company is largely interested, has made a considerable addition to its cables, over 70,000 eight-candlepower lamps being now connected to the mains, as well as a public lighting service of 300 arc lamps. The first section of the tramways, consisting of 10 miles of single track, is completed, but the complete scheme for the town of Bahia Blanca includes six routes with a total length of nearly 25 miles. In order to meet the future requirements of the docks, the power house has been placed in a convenient situation midway between the port and the town, and it is intended ultimately to raise the capacity by extensions to a total of 15,000 kilowatts. The British Westinghouse Electric Manufacturing Company of Manchester are the contractors for the new power house.

"Railway Developments in Peru," another special article in this same issue of *"The Times,"* discusses the probable development of the Peruvian railroads. Peru is one of the countries that is making rapid advancement in the matter of communications. The correspondent says:

It is to the extension of these three trans-Andine roads eastward that those who are interested are looking for important developments. Mr. ALEXANDER GARLAND, who in his work on Peru writes with special knowledge on this point, has made interesting suggestions with reference to contemplated extensions. It would seem that the obvious route for the northern trans-Andine line, when once it has crossed the River Marañon, would be to split into two branches, one going north to the river port of Limon and the other east to Yurimaguas, an important port on the Huallaga. At both of these river ports there is an unbroken navigable season, and the territory which these branch lines would open up is extensive as well as rich. The second trans-Andine railway, which would be a prolongation of the Central Railway from Callao, should, it is suggested, be prolonged to the port of Sumaria, on the River Ucayali, and the scheme would be completed by the extension of the Cerro de Pasco line to Yurimaguas, opening up a new zone and giving direct communication between Lima and the northern line.

In addition to the existing railways, regard should be had to the great linking-up process which would be carried out by the Pan-American Railway, which, being a longitudinal line, would effect a junction with each of the three great trans-Andine roads, and unite them with each other in its course through the Andean highlands. This great trunk line, after leaving Loja, in Ecuador, would continue its route via Jaen, Cajamarca, Huaraz, Cerro de Pasco, Croya, Huancayo, Ayacucho, Cuzco, Juliaca, and Puno, crossing into Bolivia near the southern end of Lake Titicaca. The fact that the international commission charged

with the investigation of the subject has provisionally selected this route can not be without its effect on the plans which are maturing in Peru itself as to the routes which new lines and extensions should follow. In any case, it is evident that the building of this longitudinal road will, in a measure, complete the railway system.

"**Land Awaiting Development in Argentina,**" appearing in the same newspaper, is of especial interest, in view of the fact of the recent advance in land values in all of the more thickly populated provinces of this Republic.

"**Gold Hunting in South America,**" "**Influence on Trade of the Panama Canal,**" "**The Traffic Problem in Buenos Aires,**" "**French Railway Companies in Argentina,**" "**From South Hampton to Rio,**" and "**The International Bureau of the American Republics,**" are the titles of other special articles. In addition to which there are notes and news of varying interest to Latin Americans.

The amount of space given to South American topics by this great London daily is added evidence of the importance of Pan Americanism.

"**Exploration ethnographique et archéologique en Bolivie (1908-09),**" by ERLAND NORDENSKIÖLD, in "*La Géographie Bulletin de la Société de Géographie*" for August 15, 1910, is a short description of the route traveled by this famous ethnologist in his expeditions during 1908 and 1909 in Bolivia. The author does no more than indicate the character of the investigations carried out and shows us that he has gathered considerable information that will be no doubt collated in a scientific work appearing in the near future.

"**The Personal Recollections of Porfirio Diaz,**" are continued in the "*Cosmopolitan Magazine*" for October. The distinguished author recounts his further adventures during the war of the French Intervention.

"**The Exclusive Society of Mexico,**" by GWENDOLEN OVERTON, appearing in "*The Delineator*" for October, should be of interest to the feminine world.

"**On the Mexico Special,**" by GEORGE BUCHANAN FIFE, in "*Harper's Weekly*" for October 15, is a rather intimate account of the recent expedition of the writers and newspaper men throughout our neighbor Republic, the article dealing more with the personal adventures of the excursionists than with conditions in Mexico.

The library of the Pan American Union has just received from Vienna the first number of "*Der Auswanderer*," a monthly publication devoted especially to the interests of Austrian emigrants. It aims to supply to those leaving Austria in search of homes in other parts of the world information that will be of practical value to them, but at the same time one of its objects is to keep alive their loyalty for the mother country.

Prometheus, a German illustrated weekly devoted to textile industries and sciences, contains in the numbers of June 15 and September 21, 1910, articles by Dr. VON JEZEWSKI, the first on chicle (chewing gum) and the second on mahogany. In addition to the fact that the articles are of interest, it is pleasant to note that the author gratefully refers to the MONTHLY BULLETIN as the source of much of his authority.

"**The inauguration of train service on the M-M,**" the leading article of her "*Marconigram*" of July 2, 1910, published at Porto Velho, Rio Madeira, Amazonas, Brazil, tells of the first trip of any train over any section of the railroad being built on the upper branches of the Amazon. The "*Marconigram*" is the "official organ" of the American engineers engaged in construction work in this section of the country. full of the humor of the pioneer, and all together worthy of the little colony of ex-patriots that are making world railway history in the heart of South America.

LATIN-AMERICAN NOTES

MONUMENT TO BE ERECTED TO THE MEMORY OF THE LATE BRAZILIAN AMBASSADOR.

According to a recent number of "Le Figaro" of Paris, Brazilian and foreign sculptors are invited to compete for the erection of a monument in Rio de Janeiro to the memory of Mr. JOAQUIN NABUCO, the late Brazilian Ambassador to the United States.

The centennial anniversary of the declaration of independence in Chile was celebrated in September of this year throughout that Republic. The most brilliant functions took place in Santiago, the capital, and in Valparaiso, the seaport. On September 18, 1910, the Chilean Independence Day, the corner stone of a monument to independence was laid, and on other days of the month military and naval reviews were held, statues were dedicated, and events of similar significance took place. The BULLETIN had planned to devote many of the pages of this November issue to a description of the centennial exercises in Santiago and Valparaiso, and, in fact, had about half the article prepared. As the official programme was not finished until the last day of September, however, and as the mail with the illustrations needed to do full justice to the events could not reach Washington before the BULLETIN went to press, it has been considered wisest to postpone the article to the December issue.

There has recently been established in Guayaquil, Ecuador, an information office (*La Sociedad General de Informacion*, Calle de Pichincha, 218), the purpose of which is to collect and supply data on commercial, technical, and general conditions in the Republic of Ecuador. The society has agents in every Province of the country, through whom they secure information on local matters also. Letters may be sent to the office at the above address, and answers on any legitimate subject will be given, according to the established tariff, as soon as possible.

The Royal Mail Steam Packet Company inaugurated on October 8, 1910, a new service to Cuba. There is a direct and an indirect schedule. Every other Saturday a steamer leaves New York at 10 a. m., touching at Bermuda the following Monday, and arriving at Antilla, Cuba, on the fifth day from New York. Returning the steamer leaves Antilla at noon on the corresponding Friday (the day after arrival), touching at Bermuda on Monday, and arriving in New York on Wednesday. The steamers on the direct service leave New York at noon on the alternate Saturday and go direct to Antilla, arriving there on the fourth day out. They proceed then to Jamaica, Colon, Cartagena, Savanilla, Trinidad, Barbados, etc., and call at the same ports in the reverse order northbound. From Antilla they depart on the alternate Fridays at 6 p. m. direct for New York, where they arrive on the following Tuesday. Attractive tours, with prices to include all necessary expenses of the trip, have been arranged in connection with this service.

Antilla is a port on Nipe Bay, which is on the north coast of Cuba toward the eastern part of the island. The town is modern and is the terminus of a railway that furnishes connection with the principal places in Cuba.

The same company offers this year, also, as in previous years, attractive tours to Panama and the Spanish Main, touching at many of the islands of the West Indies.

The Hamburg-American Line, encouraged by the success of the tour to South America of the steamship *Bluecher* early in the year, has planned a similar tour to leave New York on January 21, 1911. In addition to the east coast and a part of the Straits of Magellan in the first itinerary the company has for the coming trip included all of the Straits, the beautiful fjords of Chile, and the ports of Coronel and Valparaiso on the west coast. Passengers who so wish may then cross, through the Trans-Andine tunnel, overland to Buenos Aires. On the outward voyage stops are made at Barbados, Pernambuco, Santos, Montevideo, and Punta Arenas. Members of the party join the steamer at Buenos Aires after leaving it at Valparaiso, and on the homeward voyage stops are made at Rio de Janeiro, Bahia, Para, and two ports in the West Indies. The total distance traveled will be 18,300 miles, and the duration of the trip 74 days.

At the recent meeting of the Congress of Americanists held in Mexico, steps were taken to found an International School of Archaeology and Ethnology. The support of the Governments of Mexico and Germany was secured, as well as of several American universities—Columbia, Harvard, and Pennsylvania. France will probably cooperate, but the formal agreement has not yet been received. The statutes of the school have been drawn up by a committee of delegates, and these have been submitted to the contracting parties for approval. Further action will soon be taken, and it is expected that the school will be in operation some time in November.

According to a report of the federal post-office there are in Mexico 854 periodical publications. Of these, 276 are issued in the Federal District; 70 in Guadalajara; 37 in Monterey; 28 in Merida; 22 in Morelia; and 20 in Puebla, the others being scattered throughout the Republic. While the majority are, of course, Spanish, English has the next largest number, 27; French follows with 5; and there are 2 each of German and Italian.

The California and Atlantic Steamship Company (whose agents are Bates & Chesebrough, in San Francisco), is the name of the new line of steamers which has just begun operating between San Francisco and Balboa (Panama), making stops at San Pedro, the port of Los Angeles. The first vessel left San Francisco October 1, 1910, and was due to arrive at Balboa October 15. The service will be a fortnightly one from each terminus. The Panama Railroad Company has granted to the new line regular billing privileges on coastwise traffic, so that its rates will be the same as those offered by other companies. Three steamers are in service, the *Macanaw*, *George W. Fenwick*, and *Stanley Dollar*, the first being specially equipped with cold-storage space. On the Atlantic side the *San Mateo* will run in connection with those on the Pacific side, taking cargoes from Philadelphia and New York to Colon, and on the return voyage delivering freight, when required, to New Orleans and Charleston.

The "Marconigram," is the name of one of the exchanges of the MONTHLY BULLETIN coming to the library of the Pan American Union. It is published at Porto Velho (Rio Maderia), Amazonas, Brazil, and is the organ for news items centering around the Madeira and Mamore Railway and the construction work carried on in that part of the world. Even to the outsider, ignorant of the details of life in that section, it is full of interest; it must, therefore, be for one who lives in close touch with the people and the work done on the railway, a delightful source of general and particular information that can be obtained in no other way. The paper is witty, too. Its motto is an epitome of the Tropics—"la vida sin literatura y quinina es muerte," as every one

knows who has lived the life. One striking contrast between conditions to-day and those of over thirty years ago, when construction was first attempted on the Madeira River, is illustrated in the second number of the "Marconigram," which states that Johnson won the fight over Jeffries July 4, 1910. The message was received in Porto Velho on July 6, only forty-eight hours after the event. Thirty years ago the colony up the Madeira River was cut off from news for weeks at a time; every four or six weeks a steamer was supposed to arrive at Para from New York, but it was a month later before letters could reach the construction camp. If to-day, therefore, news from California is sent across the United States, then by cable to Para at the mouth of the Amazon and to Manaus, 1,000 miles upstream, and thence by wireless 800 miles across the wilderness to Porto Velho, it is an amazing demonstration of the rapid spread of the forces of civilization.

The steamer *New York* of the American Line is scheduled to leave New York January 28 and March 4, 1911, on two excursion cruises to the West Indies, the north coast of South America (Spanish Main), and Panama. Each cruise includes Porto Rico, St. Thomas (Charlotte Amelie), Guadeloupe, Barbadoes, Martinique, Trinidad, La Guaira (Venezuela), Curaçao, Colon (Panama), Jamaica, Haiti (Port au Prince), Cuba, and the Bahama city of Nassau. It will last thirty-one days, of which two hundred and ninety-four hours are allowed for various visits on land to include numerous trips into the interior, as, for instance, to Caracas from La Guaira, so that the holiday will be by no means confined to the ports and shore of the places visited. The *New York* is well adapted for life in the Tropics, but in addition to its usual accommodations it will have the luxuries that make travel in the tropic climate not only bearable but even a pleasure. As this steamer flies the American flag, it may be preferred on that account by those who wish to see foreign lands without leaving the protection of the Stars and Stripes. Further information can be obtained at the passenger department, 9 Broadway, New York.

On November 9 the steamship *Texan* left New York for Montevideo and Buenos Aires. The steamer is chartered by Barber & Co. for their South American service. The interesting feature about this is that the *Texan* is an American vessel, built about a year ago, commanded by American officers, and carries an American crew. It has a capacity of 15,000 tons and a speed of $12\frac{1}{2}$ knots per hour. The actual cargo carried on this trip is 14,300 tons. The *Texan* is of the oil-burning type and will make the trip in twenty-three days. As this is a private commercial enterprise to which Barber & Co. have been encouraged by the extraordinary development of South American commerce within the last few years, and as the *Texan* will be practically the only cargo steamer to carry the American flag to a port south of the equator, this voyage will be followed with decided interest by those who are to-day anxiously studying the conditions of the American merchant marine.

ARGENTINE REPUBLIC

INAUGURATION OF PRESIDENT SAENZ PEÑA.

Dr. ROQUE SAENZ PEÑA and Dr. VICTORIANO DE LA PLAZA were formally inaugurated on October 12, 1910, as President and Vice-President, respectively, of the Argentine Republic.

The new President has constituted his cabinet as follows:

Minister of the Interior, Señor INDALECIO GÓMEZ.

Minister of Foreign Affairs, Señor ERNESTO BOSCH, who is now minister at Paris.

Minister of Finance, Señor JOSÉ M. ROSA.

Minister of Justice, Public Instruction and Worship, Señor JOSÉ M. GARRO.

Minister of Public Works, Señor EZEQUIEL RAMOS MEJÍA.

Minister of Agriculture, Señor ELÍODORO LOBOS.

Minister of War, Gen. GREGORIO VÉLEZ.

Minister of Marine, Rear-Admiral PABLO SAENZ VALIENTE.

NEW RAILWAY LOAN.

The recent loan of £1,200,000 floated by the Argentine Government in London for the extension of the Eastern Railroads in the Provinces of Entre-Rios and Corrientes, marks the record of quotations for Argentine credit, as the business was done 2 or 3 points above par. The price obtained, 100 $\frac{3}{4}$, is net, free of all expenses and commissions, which charges are at least equal to £2. The loan has been taken up in various markets, including that of New York.

ARGENTINE RAILWAYS.

The financial and operating statistics of the Great Southern, Pacific, Western, Central, and Entre-Rios Railways during the fiscal year 1909-10 were as follows:

Great Southern Railway—the receipts derived from traffic are estimated at £4,590,000, as compared with £4,625,518 of the preceding year. During this year 119 miles of new road were opened to traffic.

Pacific Railway—the profit of the traffic, embracing the whole system, amounted to £4,292,949, as compared with £4,129,986 in 1908-9. The number of miles of lines constructed during the year was 448, in which are included 141 miles of the Andine Railway purchased by Argentina in November, 1909.

Western Railway—the revenues obtained during 1909-10 are estimated exactly at the same total as that of the previous year, but there has been an increase of 60 miles in the total mileage.

Central Railway—the revenues of this company are estimated at £4,711,223 as against £4,925,965 in the fiscal year 1908–9. The mileage, however, shows an increase of 136 miles over the preceding year.

Entre-Rios Railways—it is estimated that the revenues of these lines will amount to £407,557, as against £365,843 in 1908–9. There were 333 miles constructed during the year.

NEW WIRELESS STATION.

The Bureau of Posts and Telegraphs of the Republic has provided for the establishment of a wireless station in Mendoza in order to facilitate communication with Chile.

PROPOSED LOAN FOR CORDOVA.

The Government of the Province of Cordova has forwarded to the legislature a bill asking for permission to contract a loan of 12,000,000 *pesos* paper. The money thus obtained is to be used for public work and also for increasing the capital of the Bank of Cordova. The loan provides for interest at 5 per cent and an amortization of 1 per cent per annum, payable by drawing and at par. The service of the loan is to be made by an increased tax of $1\frac{1}{2}$ per thousand in the property tax.

PROPOSED MONETARY REFORM.

The Executive Power of the Republic has submitted to the National Congress a bill to amend article 1 of the monetary law. It is provided that the monetary unit of the country shall be the gold dollar. The minister shall be empowered to coin gold, nickel, and copper coins as specified by the new law. It is enacted that gold coins shall be stamped on the obverse with the coat of arms of the nation, the inscription "Republica Argentina," and the year of the coinage; on the reverse, a bust with the Phrygian cap, symbolizing liberty, and inscribed "Libertad," and the denomination of value. Those of nickel and copper to bear a bust with the Phrygian cap, the inscription "Republica Argentina," and the year of the issue, and on the reverse, a number expressing the value. The coining of gold shall be free and unlimited and effected by the mint in accordance with the regulations which may be made by the Executive Power. The gold coins mentioned in article 2, and the notes, while they are convertible, shall have compulsory circulation in the nation, and shall serve for discharging every contract or obligation within the country or abroad. The Executive Power shall issue, through the issue department, which is created by article 2, the nickel and copper coins which may be solicited, and shall convert into notes of national money those which are presented for exchange.

The gold coins issued in conformity with the law of 1881 shall be received in accordance with the reduction established by law 3871;

that is to say, the dollars referred to in article 1 shall be considered at the equivalent of 44 per cent of the former gold dollar; the silver money coined by virtue of the law of 1881 shall be withdrawn by the Executive Power within periods that may be fixed, and shall afterwards lose their value for discharging private obligations. Under article 8, foreign coins designated by the Executive Power shall be considered national coins for the effects established by article 5, and for that purpose the Executive Power shall fix their equivalent with the national unit according to the fine gold contained. Under article 11 there is created in the Bank of the Argentine Nation a special department, known as the "Issue Department," with personal books of account and treasury absolutely independent of the department charged with the banking operations. By article 12 this department shall have charge of all the operations pertaining to the conversion office. It shall issue and deliver to every applicant notes of legal currency for gold coin at par according to the unit established by article 1, and shall deliver the gold which it receives by this means to every applicant in exchange for paper money in the same proportion.

The bill provides further that the conversion fund of the issues prior to the law of November 4, 1899, shall be formed in the following manner: (a) With the 30,000,000 *pesos* gold now existing, deposited in the Bank of the Argentine Nation with that object; (b) with the proceeds of the negotiation of the following securities belonging to the nation which exist and are deposited in Europe to the order of the Government, £337,900 in 5 per cent Central Northern Railway bonds (first series), £183,700 in 4½ per cent conversion bonds of 1887; (c) with the proceeds of the liquidation of the National Bank, after deducting the service of the bonds in its charge; article 3 of the law 5681 being repealed so far as it relates to the extraordinary amortizations of bonds; (d) with other resources which may be destined annually to that object in the national budget. Article 16 provides that the conversion fund to which the preceding article refers shall continue to be employed by the banking department in the purchase and sale of drafts on foreign countries.

When the conversion fund reaches the sum of 60,000,000 *pesos* gold the Executive Power is authorized to change all the notes then in circulation, for notes payable in dollars of national gold money, in conformity with the monetary unit established under the present law, without prejudice to continuing to fulfill that which is directed by the preceding article.

The message states that the preservation of the monetary unit equivalent to 44 cents gold will tend to the solution of the problem of the universal uniformity of money. It will not anticipate this with a new medium of exchange which it might be expedient to establish with neighboring nations. What the Executive Power

proposes will have the advantage of not altering the prices of commodities and of not necessitating alterations of general bookkeeping, and it will avoid the great expense which would be incurred by the renovation of the paper and other money in circulation. It will only be necessary to alter in accounts the equivalents of foreign coins calculated in accordance with the standard of 1861, and even in this the benefit will be obtained of suppressing the unnecessary duplication of accounts and of monetary relations which now exist. The bill adopts as the monetary unit that of 44 per cent of the unit established by the law of November 5, 1881, which will be represented by a gold coin of \$10 and subsidiary coins of 20, 10, and 5 cents in nickel and 2 and 1 cents.

The Executive Power is of the opinion that the conversion fund ought to be increased with the new resources provided by the bill presented for the consideration of Congress.

FOREIGN COMMERCE DURING THE FIRST SIX MONTHS OF 1910.

The Pan American Union has received the report of the Director-General of Statistics of the Republic regarding foreign commerce of the country during the first half of the year 1910, the total value of which amounted to 365,239,061 *pesos* gold, of which 194,258,400 *pesos* gold were for exports and 170,980,661 *pesos* gold for imports. Comparing these figures with those of the same period of 1909, a decrease is shown in the exports amounting to 57,515,039 *pesos* gold and an increase in imports of 29,742,601 *pesos* gold.

The exports, according to the six principal classifications, were as follows:

	Pesos.
Pastoral products.....	87,122,070
Agricultural products.....	101,278,197
Forest products.....	3,973,478
Mineral products.....	307,927
Game and fish.....	296,826
Miscellaneous.....	1,279,902
Total.....	194,258,400

The largest decrease was that recorded in the exports of wheat, which decrease amounted to about 966 tons, valued at 44,005,584 *pesos* gold. Maize exports suffered a decline of 549,292 tons, valued at 14,446,582 *pesos* gold. The exports of flax decreased also in the amount of 245,824 tons, and those of oats in 152,272 tons.

The imports, classified by groups, were as follows:

	Pesos.
Live stock.....	647,693
Foodstuffs.....	15,106,249
Tobacco and its manufactures.....	3,437,581
Beverages.....	7,038,587
Textiles and manufactures thereof.....	34,537,685
Mineral and vegetable oils.....	5,959,725

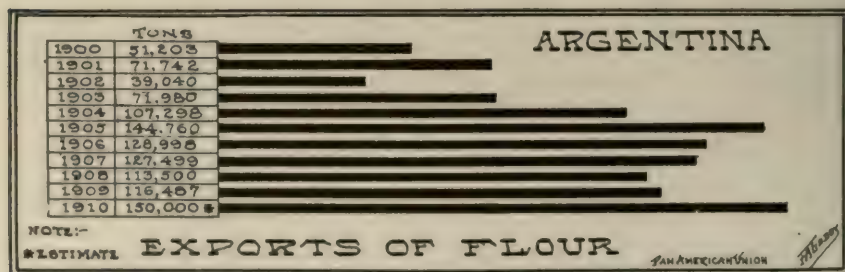
	Pesos.
Chemical and pharmaceutical products.....	6, 180, 511
Paints and ointments.....	1, 154, 374
Wood and manufactures thereof.....	4, 047, 793
Paper and manufactures thereof.....	3, 858, 853
Leather and manufactures thereof.....	1, 624, 613
Iron and manufactures thereof.....	21, 034, 386
Other metals and manufactures thereof.....	5, 943, 149
Agricultural products.....	7, 220, 996
Railway cars, carriages, vehicles, etc.....	17, 312, 097
Stones, earth, etc.....	14, 511, 363
Building materials.....	13, 947, 849
Electrical supplies.....	3, 051, 583
Miscellaneous.....	4, 365, 574
Total.....	170, 980, 661

Among the most notable increases was that recorded in the importation of foodstuffs in general. This increase was due to the imports of refined sugar, of which 21,651 tons were imported in 1910, an increase of 17,697 tons over 1909, and 38,087 tons of raw sugar, an increase of 22,928 tons. The imports of woolens, cotton goods, iron and steel, agricultural implements, rolling stock, electrical supplies, building materials, stone, earth, and coal increased considerably. The customs revenues derived from the imports amounted to 42,682,686 *pesos* gold and 492,410 *pesos* paper, an increase of 7,395,339 *pesos* gold and 61,670 *pesos* paper over the receipts for the same period of 1909.

FLOUR INDUSTRY IN 1909.

The production of flour in the Republic during 1909 was as follows, by Provinces and Territories:

Province.	Production in kilograms.	Province.	Production, in kilograms.
Federal Capital.....	213, 087, 172	Catamarca.....	511, 540
Buenos Aires.....	183, 479, 638	Salta.....	1, 232, 295
Santa Fe.....	126, 837, 891	Jujuy.....	221, 700
Entre Rios.....	40, 347, 744	Pampa Central.....	4, 076, 634
Córdoba.....	76, 993, 089	Neuquen.....	213, 400
San Luis.....	9, 000	Rio Negro.....	28, 000
Santiago del Estere.....	479, 012	Chubut.....	371, 112
Mendoza.....	15, 966, 880	Total.....	695, 627, 504
San Juan.....	15, 614, 730		
La Rioja.....	2, 517, 667		



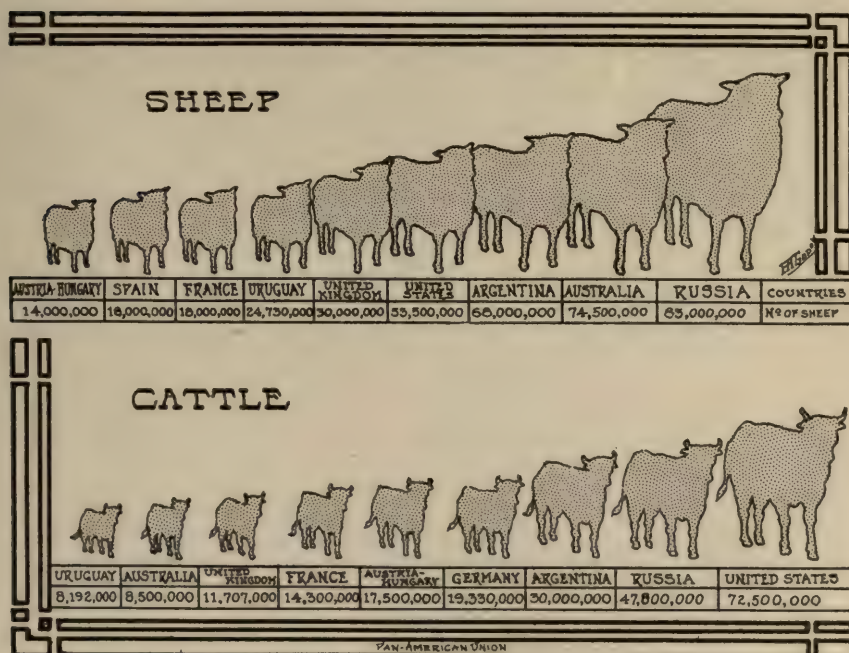
The exports of flour from 1896 to the first half of 1910, inclusive, were as follows:

Year.	Tons.	Year.	Tons.
1896.....	51,732	1904.....	107,298
1897.....	41,443	1905.....	144,760
1898.....	31,933	1906.....	128,998
1899.....	59,464	1907.....	127,499
1900.....	51,203	1908.....	113,500
1901.....	71,742	1909.....	116,487
1902.....	39,040	1910 (6 months).....	74,881
1903.....	71,980		

LIVE STOCK IN THE REPUBLIC.

The Bureau of Statistics of the Department of Agriculture of the Argentine Republic has just published a pamphlet comparing the live stock of the Republic with those of other countries, which comparison shows the large production per capita of meat in the Republic.

ARGENTINA LIVE STOCK -



Countries.	Popula- tion.	Number of cattle.	Number of sheep.	Total pro- duction of meat, in tons.	Average per capita, in kilo- grams.
United States.....	88,000,000	72,500,000	53,500,000	23,355,000	265
Argentine Republic.....	6,800,000	30,000,000	68,000,000	11,040,000	1,624
Australia.....	5,000,000	8,500,000	74,500,000	4,785,000	957
Austria-Hungary.....	47,000,000	17,500,000	14,000,000	5,670,000	120
Germany.....	65,000,000	19,330,000	8,000,000	6,039,000	93
France.....	38,550,000	14,300,000	18,000,000	4,830,000	125
Italy.....	32,000,000	5,000,000	7,000,000	1,710,000	53
Russia.....	132,000,000	47,800,000	83,000,000	16,830,000	127
Spain.....	18,500,000	2,000,000	18,000,000	1,140,000	82
Great Britain.....	41,000,000	11,707,000	30,000,000	4,410,000	105
Canada.....	6,000,000	7,000,000	3,000,000	2,190,000	365
Belgium.....	7,000,000	1,790,000	236,000	544,080	78
Portugal.....	6,000,000	817,000	3,100,000	338,100	56

THE WINE AND SUGAR INTERESTS.

According to Bulletin No. 9 of the Bureau of Commerce and Industry of the Argentine Department of Agriculture, regarding the wine and sugar interests of the country, there are 3,409 wine establishments whose capital, exclusive of the price of the vines, reaches 65,376,511 *pesos*; they use raw material valued at 41,271,841 *pesos* annually, and their total yearly production amounts to 379,699,708 liters of wine and 1,955,516 liters of alcohol, valued at 428,087 *pesos*. These factories employ 9,635 laborers in normal times and 3,141 in vintage time.

The sugar industry is represented by 37 plantations with a total capital of 74,416,733 *pesos*. Annually, these plantations use raw material valued at 18,419,470 *pesos* and sell products to the value of 46,730,697 *pesos*. They employ 38,591 laborers.

GOVERNMENT RAILROAD LINES UNDER CONSTRUCTION.

According to the report received from the Department of Public Works, the number of kilometers of government railroad lines completed and under construction August 8, 1910, were as follows:

Lines.	Kilome- ters com- pleted.	Lines.	Kilome- ters com- pleted.
Ledesma-Embaracion.....	102	Barranqueras-Metan.....	77
Bandera-Chaco.....	28	Dean Funes-Laguna Paiva.....	278
Bracho-Santa Rosa de Leales.....	16	San Antonio lago Nahuel Haupl.....	157
Ramal de Tinogasta (Branch).....	140	Puerto Deseado lago Nahuel Haupl.....	55
Formosa-Embaracion.....	100		

PUBLIC DEBT IN 1909.

According to the latest statistics the status of Argentina's public debt on December 31, 1909, was as follows:

Interior debt:	
Pesos paper.....	115,245,300.00
Pesos gold.....	87,483,900.00
Foreign debt:	
Pesos gold.....	311,513,829.33

MEAT TRADE IN 1909.

The latest statistics show that although there was a decrease in the export of sheep from Argentina during 1909, a considerable increase was recorded in the export of cattle. Reducing the total number of heads exported (1,013,953 cattle and 2,597,015 sheep) to its weight in meat, we have a total of 235,428 tons, as compared with 293,252 tons in 1908. As regards the domestic consumption of meat, statistics show that the 96 officially recognized slaughterhouses killed 1,126,023 heads of cattle.

LAW REGULATING COASTWISE NAVIGATION AND COMMERCE.

The "BOLETIN OFICIAL," contains in its issue for August 24 the text of the law regulating coastwise navigation and traffic in the Republic, approved by the National Congress August 13 and promulgated by the Executive on the 22d of the same month.

FREE COMMERCIAL ZONE.

On August 19, 1910, the President of the Argentine Republic signed a decree providing for the establishment of a free commercial zone in the port of Rosario. In accordance with the decree the concessionaire of that port shall submit a project for the establishment and regulation of a zone, together with plans and specifications illustrating the location, construction, and estimate of the cost of the work.

RAILWAY NOTES.

The Government has fixed the capital of the Villa Maria Rufino Railway at 5,696,498.81 *pesos* gold up to June 30, 1909.

The capital of the Cordoba and Rosario Railway to June 30, 1909, has been recognized by the Government as amounting to 13,984,625.34 *pesos* gold.

The capital of the Argentine Great Western, on June 30, 1909, has been recognized by the Government as amounting to 49,171,743.07 *pesos* gold.

The Government has approved the estimates for working the State lines during 1910 at 11,301,600 *pesos* gold, and also the sum of 300,000 *pesos* gold for renewals of permanent way and rolling stock.

POPULATION OF LA PLATA.

The population of the city of La Plata, on June 30, is given as 97,066 inhabitants, as against 96,900 on May 31. During the month of June there were 306 births, 90 marriages, and 140 deaths.

PLANS OF SUBWAY LINE IN BUENOS AIRES.

The final plans for the subway line from Plaza Once de Septiembre to Plaza de Mayo were recently submitted to the municipal *intendente* of Buenos Aires.

According to the details obtained, the tunnel will be much nearer the surface than is usually the case; in fact, the maximum depth at any point will not exceed 7 meters. In Paris tunnels are constructed at a depth of 12 or 13 meters below the surface, while in London the distance is usually 30 to 35 meters. The mean velocity at which cars are to be run will be 18 kilometers per hour, so that traveling time between the two plazas should not exceed twelve minutes. The cars, moreover, are not to be of uniform type, but some of them will be so constructed as to be adaptable for service either on the underground or service lines, as occasion may demand. The tunnel is to be a solid structure of brick and cement with an arched roof. At each of the stopping places mentioned there is to be a station with a wide platform and long enough to accommodate a train of eight coaches.

ARGENTINE CHAIR IN THE UNIVERSITY OF PARIS.

A decree was promulgated on September 8, 1910, authorizing the Minister of Justice and Public Instruction of the Argentine Republic to enter into and sign an agreement or convention with the Minister of France, resident in Buenos Aires, relative to the establishment in the Paris University of a chair devoted to the Political and Economic History of Argentina.

MAR DEL PLATA LOAN.

In regard to the 7,000,000 *pesos* gold loan required for construction works at Mar del Plata, the Banco Español del Río de la Plata has offered to take up the shares at 87 per cent (net) of their nominal value.

The Provincial Minister of Finance has, accordingly, drawn up a decree accepting the bank's proposal to undertake the loan of 7,000,000 *pesos* gold or its equivalent in gold at 4½ per cent interest and 1 per cent per annum amortization, with the guaranties and conditions established by the law referring thereto.

CULTIVATION OF ARID LANDS.

The Argentine Government has decided to enter into negotiations with the United States for the services of an agricultural expert to study the practicability of introducing into Argentina the system of cultivation adaptable to dry stretches of country.

This resolution is in connection with the act for opening up the national territories.

PETROLEUM WELLS IN COMODORO RIVADAVIA.

The Argentine Executive has promulgated a decree reserving 5,000 hectares in the oil-bearing region of Comodoro Rivadavia, to be disposed of as considered expedient.

The decree also credits the Ministry of Agriculture with 500,000 *pesos* gold for such work as may be contemplated on the said area of land.



CULTIVATION OF COFFEE, CACAO, AND SUGAR CANE IN THE REPUBLIC.

The bulletin of the National Bureau of Statistics of Bolivia for the second half of 1910 publishes an interesting report on the cultivation of coffee, cacao, and sugar cane, from which the following information has been taken:

The richest district of the Republic is located in the southeast and southwest, which includes a large portion of the Department of La Paz, part of the Department of Chuquisaco, and the Departments of Cochabamba, Santa Cruz, and Beni. Coffee is cultivated mainly in the Department of La Paz. The product is considered as being of superior quality; it is also raised in the Province of Apolobamba in the same department, and in the Provinces of Sara Velasco, Chiquitos, and Corvillera in the Department of Santa Cruz. Coffee is also produced in the department of Chuquisaca, but on a small scale, although the valleys of that department are well adapted to this kind of cultivation. The production of coffee in the Department of La Paz could be considerably increased but more attention is devoted to the cultivation of cacao.

The production of cacao is still more limited than that of coffee and most of it is raised in the department of Santa Cruz, although its cultivation is not attended to as it should be; the best cacao is produced in the Province of Apolobamba in the Department of La Paz. This kind is very popular and is known by the name of "Misiones" or "Cavinas" cacao, after the Franciscan mission, now destroyed, where it is produced. In this region cacao trees grow in great abundance and in very thick groups, some of which contain as many as 1,000 trees.

The cultivation of sugar cane is conducted on a large scale in the Department of Santa Cruz, also in the Departments of Chuquisaca, La Paz, and Cochabamba.

Most of the production of these three articles is consumed in the country. Coffee is exported in small quantities to Chile and the Argentine Republic.

EXPORTS OF GOLD AND SILVER IN 1908-9.

The exportation of gold and silver from Bolivia during the last two years has been as follows:

	1908.			1909.	
	Kilograms.	Official value.		Kilograms.	Official value.
		<i>Bolivianos.</i>			<i>Bolivianos.</i>
Silver.....	156,482,340	8,058,092.00	Silver.....	156,507,309	8,060,461.33
Gold.....	35,496	59,123.00	Gold.....	39,900	65,244.66

PRODUCTION OF SILVER.

According to figures received from the National Bureau of Statistics of Bolivia, the production of silver in the Republic in the last five years was as follows:

Years.	Kilograms.	Values.
		<i>Bolivianos.</i>
1904.....	88,592,030	3,875,949.00
1905.....	88,607,073	3,858,020.00
1906.....	110,116,023	4,786,752.00
1907.....	194,121,096	5,483,463.00
1908.....	156,482,034	8,058,092.00
1909.....	156,507,309	8,060,461.33

The value of the boliviano is 40 cents United States gold.

MESSAGE OF THE PRESIDENT.

On August 6, 1910, Señor ELIODORO VILLAZON, President of the Republic, submitted to the National Congress his first message which shows the progress attained by the Republic and the success that has crowned the first year of his administration.

The message states that the relations maintained by the Republic with other nations of the world are most cordial and that the Government exerts its best efforts in order to make them still closer by accrediting new legations and entering into commercial pacts. The President lays particular stress on the relations with the United States, and says:

We are receiving from the Government at Washington testimonials of a friendly character, both as regards the general development of our relations with that Republic and in respect to the delicate questions of our foreign policy.

Speaking of the railroads, the message states that the Division of Promotion has continued to carry out the railroad policy adopted by previous Governments, the realization of which programme is in charge of the Bolivian Railway Company. Therefore, upon the completion of the Viacha-Oruro Railway the construction of the Oruro-Cochabamba line was undertaken. The first section of 59 kilometers has already been opened to the public. The remainder of the line will soon be completed. The works of the Mulatos-Potosi Railway are also well underway and it is expected they will be finished toward the latter part of 1910, when the construction of the Uyuni-Tupiza Railroad will be initiated. A commission of able engineers has been surveying the line from Yungas to Puerto Pambo.

The condition of the funds for the construction of this railroad is as follows:

Balance of the deposit of the Government in the possession of Schoder, Speyer, and the City National Bank of New York.....	£1, 701, 500
Amount to be contributed by Speyer & Co. and the City National Bank for the execution of the contract.....	2, 051, 760
Balance of remittances sent by the Government.....	382, 179
Total fund available for railroad construction.....	4, 135, 439

The total extension of the railroad lines built by the different companies within the territory of the Republic up to the present date is 774 kilometers.

The La Paz-Guaqui Railroad was leased to the Peruvian Corporation under the condition that 30 per cent of the gross receipts shall be applied to the payment of the capital and the interest due that company for sums advanced for the construction of the line.

The Madeira-Mamoré Railway is progressing rapidly toward Bolivian territory, and it is expected that within two years the line will reach Guayaramerin.

The construction of the Arica Railroad is being carried out in accordance with the contract entered into with the Jackson firm, and it is certain that the work will be completed within the prescribed period. When this railroad is completed, the country will have a most important means of communication with the Pacific, greatly developing its industries and foreign trade.

New telegraph lines have also been constructed to the extent of 135 kilometers, and material has been purchased for the construction of a direct line from Uyuni to Tupiza and of a double line from Challapata to Ollague. The number of telegraph messages issued during the year 1909 was 276,974 and those received were 295,499. The revenues from the telegraph lines amounted to 198,621.16 *bolivianos*. The total extension of the telegraph lines, including private ones, was of 5,007 kilometers.

Speaking of the foreign trade the message points out that there was a remarkable increase in the second half of 1909, and at the close of that year the exports were represented by the following figures:

	Bolivianos.
38,659 tons of tin bars.....	31, 654, 109
3,052,453 kilograms of rubber.....	21, 947, 138
155,360 kilograms of silver (in sulphurs and minerals).....	5, 721, 915
3,096,605 kilograms of copper bars.....	1, 641, 201
236,762 kilograms of bismuth.....	1, 451, 075
466 kilograms of gold.....	57, 036
1,565,975 kilograms of miscellaneous metals, such as wolfram, antimony, borax, etc.....	1, 291, 721
Total.....	63, 764, 195

The imports were valued at 34,224,764 *bolivianos*.

Comparing the above figures with those of 1908, an increase is noticed in the exports in 1909 amounting to 4,839,849 *bolivianos* and in the imports of 1,156,188 *bolivianos*.

Regarding the financial situation of the country, the message states that the budget for 1909 was approved with a revenue of 16,209,026 *bolivianos*, and expenses amounting to 20,363,662 *bolivianos*, the deficit being 4,154,436 *bolivianos*. The estimates of the revenues were exaggerated, because when the accounts were submitted for the consideration of Congress the real deficit shown was 7,553,996 *bolivianos*. After this experience the legislature decided to pass a balanced budget, estimating the national revenue at 13,540,000 *bolivianos* and departmental revenues at 2,517,219.17 *bolivianos*, and fixing the expenses, both national and departmental, at 16,457,665.55 *bolivianos*, the deficit amounting to 346,434.85 *bolivianos* only.

Concerning the internal debt, the President says that its amortization has continued steadily and that its present condition is as follows:

The registered debt amounts to 5,754,998.89 *bolivianos*. Of this amount bonds have been issued and fractions paid in cash to the amount of 3,976,029 *bolivianos*, 1,778,969 *bolivianos* being left pending. The value of the amount cancelled is 3,146,276 *bolivianos*. The value of the bonds still in circulation and unpaid is 820,325 *bolivianos*.

The only foreign debt of the nation is the Morgan loan of £500,000. The first-service coupons have been paid to over £15,454.10, thus reducing the original amount to £484,545.90.

The revenue of £5,000 monthly assigned to Speyer & Co. for the service of the railroad guaranty has been punctually paid, £60,000 having been delivered last year and £30,000 during the first half of 1910.

The various banks of issue increased their capitals and financial condition on June 30, 1910, as follows:

	Bolivianos.
Actual capital.....	18, 700, 000. 00
Cash on hand.....	738, 810. 10
Notes issued.....	21, 452, 417. 00

EXPORTS FROM NEW YORK IN SEPTEMBER.

According to the statistical table of the Consulate-General of Bolivia in New York, the exports from that port to Bolivia during 1910 were as follows:

Custom-house.	Via—	Value.	Merchandise.	Value.
La Paz.....	Mollendo.....	\$21,946.77	Machinery.....	\$5,950.98
Antofagasta.....	Antofagasta.....	20,270.79	Hardware.....	4,180.35
Villa-Bella.....	Para.....	30,535.09	Foodstuffs and beverages.....	6,836.75
Puerto Suarez.....	Montevideo.....	3,175.74	Cotton goods.....	13,455.83
Yacuiba.....	Rosario.....	1,483.00	Miscellaneous.....	46,957.48
Tarija.....	Montevideo.....	220.00	Kerosene.....	250.00
		77,631.39	Total.....	77,631.39

**NEW BRAZILIAN CABINET.**

Information has been received by cable that President-elect MARSHAL HERMES da Fonseca has selected his new cabinet as follows:

Minister of Foreign Affairs, Baron DE RIO BRANCO.

Minister of the Interior, Senhor CORREA.

Minister of Public Works, Dr. J. J. SEABRA.

Minister of Agriculture, Senhor Dom PEDRO TOLEDO.

Minister of Finance, Senhor SALLES.

Minister of War, General BARRETTO.

Minister of Marine, Admiral LEO.

ELECTRIFICATION OF VICTORIA TO DIAMANTINA RAILWAY.

The President of Brazil has approved the project of electrification of the Victoria to Diamantina Railway as far as Itabira de Matta Dentro. The total cost of the line will be reimbursed from the freights charged on iron ore, as provided by the decree authorizing the transformation of the railway.

NAVIGATION SERVICE ON THE TOCANTINS AND ARAGUAYA RIVERS.

A decree of July 28, 1910, revises the contract entered into with the Northern Railways Company of Brazil for the navigation of the Tocantins and Araguaya rivers and their affluents. Under the terms of the revised contract the company will operate a line of steamers on the lower Tocantins between Belem and Alcobaca; a line on the upper Tocantins between Porto Nacional, in the State of Goyaz,

and Maraba, situated just above the junction of the Araguaya with the Tocantins River (this service will be extended as far as Palmas whenever the river is navigable as far as that point); a line on the Araguaya River between Leopoldina, in Goyaz, and the junction of the Araguaya and the Tocantins rivers. The company will operate a line of towboats between Maraba and the present terminus of the Alcobaca-Praia da Rainha Railway. This service will be discontinued as soon as the railway has been completed to a point along the Araguaya which is navigable by steamers.

On the Araguaya Line a passenger steamer will be run between Leopoldina and Santa Maria or Conceicao. Between Santa Maria and the junction of the Araguaya River with the Tocantins steam launches will be used. The service on the lower Tocantins will continue to be one round trip per month, while twelve round trips annually are fixed as the minimum for the other lines.

The company will receive a yearly subsidy of 30,000 *milreis* for the lower Tocantins service, of 60,000 *milreis* for the upper Tocantins line, and of 60,000 *milreis* for the Araguaya and Rio das Mortes lines. The services on the upper Tocantins and Araguaya rivers must be inaugurated within eighteen months after the signing of the contract.

FOREIGN TRADE, FIRST SEVEN MONTHS OF 1910.

The following official statement shows the exports of the leading products of Brazil during the first seven months of 1910, compared with the same period of 1909:

Articles.	1910.	1909.	Articles.	1910.	1909.
Coffee.....	\$57,519,635	\$57,517,630	Cotton.....	\$2,092,620	\$1,064,015
Rubber.....	85,915,795	47,154,960	Hides.....	5,746,095	5,767,135
Tobacco.....	6,397,820	5,595,650	Skins.....	2,477,865	3,074,720
Sugar.....	2,868,295	2,019,185	Various.....	9,103,065	8,497,290
Harva matte.....	4,574,135	4,018,775			
Cacao.....	3,565,005	3,871,645	Total.....	156,549,900	138,581,005

The value of the imports in the first seven months of 1910 was \$126,826,255, as compared with \$100,709,045 in the same period of 1909.

NEW WIRELESS TELEGRAPH STATION.

United States Consul S. P. Warner, of Bahia, reports that the Brazilian Government has erected a wireless telegraph station on the beach at Amaralina, close to the village of Rio Vermelho, which is about 2 miles north of the light-house that stands at the entrance of the harbor here.

The new station is equipped with the Telefunken system and has a guaranteed range of 400 miles, although its actual working range

is far greater, as evinced by the fact that during the trials recently conducted communication was readily established with the wireless station near Rio de Janeiro (about 730 miles) and with a vessel more than 1,000 miles distant. Messages are relayed between Amaralina and Bahia by an overland telegraph line.

The principal features of the station, which was installed by a German firm, are as follows: Height of mast, 197 feet; primary energy, 20 amperes and 220 volts; number of rotations of generator per minute, 1,500; high tension of transformer, 15,000 to 20,000 volts; number of jars (Leyden), 4; length of waves used, 600, 1,000, and 1,600 meters (656.1, 1,093.6, and 1,749.7 yards, respectively). The telegraphic call of the station is AML.

BIDS FOR PORT IMPROVEMENT WORKS AT FORTALEZA.

The Minister of Public Works at Rio de Janeiro has called for bids for the construction of the improvement works at the port of Fortaleza, in the State of Ceara. Bids will be received up to October 30, 1910. The cost of the works is estimated at 16,000 *contos* of *reis*.

SUGAR CROP OF BAHIA.

According to official figures, the sugar crop of the State of Bahia for the present year amounts to about 500,000 bags.

HARD-WOOD CONCESSION.

Mr. PAUL DEMERS, representing a group of United States capitalists who desire to exploit a hard-wood concession in the State of Bahia, is now in Rio for the purpose of conferring with the Minister of Industry and Public Works in regard to this project.

BRAZILIAN GEOGRAPHICAL CONGRESS.

The Second Brazilian Geographical Congress was held at Sao Paulo in September of the current year. Among those who presented valuable papers on this occasion were Mr. AFFONSO A. DE FREITAS, who read a treatise on "The Guayanas of Piritininga," and Dr. ERMELINO A. DE LEO, who presented a valuable and interesting monograph on the "Kaigangues of the Parana River."

NEW STEAMER SERVICE.

A monthly service of steamers between Rio de Janeiro and Leixões, Portugal, was inaugurated in September, 1910, by the Lloyd Brasileiro Company. The vessels of this company will call at Bahia, Pernambuco, Madeira, and Lisbon.

NEW INDUSTRIAL ENTERPRISES.

A new rubber company, known as the "Sant Antonio (Para) Rubber Estates (Limited)," has been authorized to operate in Brazil. In addition to rubber the company proposes to cultivate sugar, tea, coffee, and pimento.

MISCELLANEOUS NOTES.

The Brazilian Ministers of Foreign Affairs and of Finance of Brazil have signed a treaty of commerce with Bolivia, represented by its Minister at Rio de Janeiro, Senhor CALUDIO PINILLA.

Messrs. PERIER & Co., Parisian bankers, have intimated to the Finance Secretary of the Brazilian State of Minas Geraes that they wish to contribute 25,000 francs to the grand national subscription for the acquisition of the fourth ironclad dreadnought *Riachuelo*.

The Brazilian Minister of Public Works has submitted for the consideration of the President of Brazil the proposal of the Northern Brazil Railway Company, with a view to the effective navigation of the rivers Araguaya and Tocantins by means of prolongations, so as to remove the obstruction to traffic at present caused by the rapids.

According to the figures of the Sugar Syndicate of Bahia, the production of sugar in that State for the season 1909-10 is estimated at 474,523 bags of 60 kilos, equivalent to 2,847,380 kilos.

During the seven first months of the year 10,578 immigrants have been received at Sao Paulo for account of the Government, whereas during the whole of 1909 the total did not exceed 12,936, and in 1908 only 9,433. The delegates of Russia, Austria, and the other countries appointed to officially investigate the conditions existing in the colonial centers of Sao Paulo have, we are assured, reported favorably with respect to the results of their personal observation.

The Brazilian Department of Agriculture is moving with a view to utilizing the capacities of Brazil for cotton cultivation. Arrangements are said to have been made to send cotton to the United States for the purpose of testing the existing methods of cotton culture in Brazil and to obtain a number of American experts for Brazil in order to further the interests of cotton cultivation there. Through the United States negotiations are said to be in progress, and every aid will be given to Brazilian specialist or specialists.

NEW NAVIGATION SERVICE.

The steamship company of Mello, Frotas & Co. have obtained a concession for the establishment of a regular service between Belem, Manaus, and ports on the Jurua and its tributaries. The steamers which will be used on this line will have a capacity of 80 tons and will have accommodations for about 40 first-class passengers.

CHILE

FOREIGN DEBT.

The following is a résumé of the foreign debt of Chile from December 31, 1905, to the present time:

At the beginning of this period the debt amounted to £17,599,300. On March 27, 1906, the Executive contracted with the Deutsche Bank of Berlin, and Speyer Brothers, of London, a loan of £3,700,000, of which £1,500,000 were to be expended for water systems and other sanitary improvements in the different cities of the Republic, and £2,200,000 for the construction of the Arica-La Paz Railway. The foreign debt on December 31, 1906, had now increased to £21,047,580. During this year bonds amounting to £250,000 were canceled, and the annual service of the loan totaled £1,205,955.

In 1907 the debt decreased £310,240 through ordinary amortizations, and by December 31, 1907, it was reduced to £20,737,340. During this year, however, by virtue of power delegated to it, the administration of late President MONTT issued, for circulation in London, treasury bonds to the nominal value of £1,100,000 for the reconstruction of Valparaíso, which was destroyed by an earthquake in the summer of 1906. It is fitting to state at this point that, in addition to the above issue of bonds, the nation appropriated £8,350,000 from its ordinary revenues.

In 1908 the debt was decreased by £344,440 through amortization, and on December 31 the total amount had been reduced to £20,392,900.

In January, 1909, a loan was raised in London to the nominal value of £3,000,000, which netted £2,782,500. This was really the first loan contracted by the MONTT administration. Of this amount £1,100,000 were used in the redemption of bonds issued for the reconstruction of Valparaíso; 21,967,224.87 *pesos*, national currency, in the purchase of materials for the extension of Government railroads; 5,365,148.94 *pesos* in the continuation of transversal railroads; and 2,116,024.86 *pesos* in purchase of buildings for the Santiago police force.

On December 31, 1909, the amount of the debt was £23,039,320, £353,580 having been canceled during the year. But in May of the same year the second loan raised by the MONTT administration was contracted for, amounting to £2,600,000, to be invested as follows: £1,500,000 in the Arica-La Paz Railroad, and £1,100,000 in the completion of the reconstruction of Valparaíso.

Therefore, the foreign debt that will be in circulation on December 31, 1910, will amount to £25,239,320, the ordinary amortization being nearly £400,000.

COINAGE OF SILVER MONEY.

The Minister of Finance has promulgated a law that authorizes the President of the Republic to order the coinage of 5,000,000 *pesos* in 50-cent and 100-cent silver pieces.

RAILROADS UNDER CONSTRUCTION.

On June 30, 1910, there were under construction in the Republic of Chile, 2,440 kilometers of railroad lines, distributed as follows: Longitudinal Railway, 1,574 kilometers; line from Rmales to the Cordillera, 650 kilometers; line from Rmales to the coast, 116 kilometers.

AGRICULTURAL PROSPERITY.

The United States Consul at Valparaiso reports that the latest published reports by the Department of Agriculture show that the agricultural interests of Chile prospered better during 1909 than in 1908, and that the outlook for 1910 is even better than for 1909. The report shows that there was an increased acreage under cultivation of 1,383,196 acres during 1909 over 1908, making a total of 9,211,324 acres under cultivation in Chile at the close of last year.

There was an increased production in most farm products during the year, with wheat in the lead, which amounted to 22,333,303 bushels for 1909, against 18,922,462 bushels for 1908. It is estimated that 13,343,000 bushels will be needed for home consumption, leaving 8,990,303 bushels for export, of which England takes the greater portion. The average yield for the country was between 15 and 16 bushels per acre.

The additional use of nitrate and other fertilizers, together with the use of more improved machinery and up-to-date methods employed, are advancing the agricultural interests materially. The Government is encouraging the farmers by giving them special rates on the railroads for the transportation of fertilizers, etc.

The dairy interests showed an improvement with 216,132 milch cows for 1909, against 205,084 for 1908. The price of butter ranges from 30 to 70 cents United States gold per pound, according to the season and location.

From present indications the next few years will see a greater demand for improved agricultural machinery and implements in Chile than ever before.

CONSULAR NOTES.

The receipts of the Chilean Government for 1909 amounted to \$51,711,155 United States gold, with an expense account of \$56,180,977, leaving a deficit of \$4,469,822 for the year.

The Government has 1,677 miles of railroad completed and 1,346 miles under construction, while private interests have 1,920 miles completed and 106 under construction.

During the first six months of 1910 the receipts of the government railroads were \$5,126,692, against \$4,667,482 for 1909, while the expenses for the same period for 1910 were \$5,741,524, against \$5,576,883 for 1909.

It is stated that when the Arica-La Paz Railway is completed, which should be within eighteen months, the time from the Pacific coast to La Paz will be reduced for passengers from twenty-three to fourteen hours, and for freight from four days to twenty-five hours.

A syndicate of capitalists of Holland have sent two expert engineers into the country adjacent to Punta Arenas to make a study of the mineral resources of that part of Chile.

It is announced that petroleum of a high grade has been found in paying quantities in the vicinity of Ceremapu, at a depth of 534 meters, or 1,764 feet.

In 1909 there were 12,616 more acres of vineyards under cultivation than in 1908, with an increased production of 5,744,391 gallons of wine over that year.

It is reported that there are now 145,894 acres of vineyards, of which 47,403 are on irrigated land. The wine produced for 1909 is given at 254,046,959 gallons.

There are 6,743,052 acres of forests in Chile, located principally south of latitude 35° south. Of this area, 2,572,457 are irrigated lands and 2,169,360 acres are susceptible of irrigation.

During 1909, 2,611,941 pounds of figs were grown, the greater portion in the Provinces of Atacama and Coquimbo, and 845,093 pounds of olives. In the same year, 7,142,718 pounds of cheese were made.

IMPORTS BY PARCEL POST.

Consul ALFRED A. WINSLOW, of Valparaiso, reports that the use of the International Parcel Post is increasing very rapidly in Chile, to the advantage of the small buyer as well as the merchant. During 1909 articles to the value of \$944,298 United States gold reached Chile through this means against \$516,945 for 1908. The increase was practically all from Europe and consists largely of fancy goods, gloves, jewelry, feathers, etc. The facilities for handling this business by the customs officers have been greatly improved during the year.



COLOMBIA

NEW WIRELESS STATION AND NEW PORT.

A German company is building in Colina de la Popa, Colombia, a wireless station for communication with the banana plantations owned by the company on the Uraba Gulf. The apparatus to be used in this station is a powerful one, and will enable communication with distant points.

This company also intends to build a large wharf at Puerto Cesar, Uraba Gulf.

CANALIZATION OF THE MAGDALENA RIVER.

The Colombian Government has taken charge of the supervision and management of the canalization of the Magdalena River and its tributaries. For this purpose a bureau of management and a canalization board have been established in Bogota, and an advisory board in Barranquilla.

CHAMBER OF COMMERCE IN CALI.

By virtue of an executive decree of August 3, 1910, there has been established in Cali a chamber of commerce with 9 members, having jurisdiction over the Cauca Valley.



COSTA RICA

THE BOUNDARY TREATY WITH PANAMA.

"La Gaceta," of Costa Rica, for September 25, 1910, publishes the text of an Executive Decree promulgating the convention approved by the Constitutional Congress of the Republic on August 25, 1910, submitting the boundary controversy between Costa Rica and Panama to the arbitral decision of the Chief Justice of the United States. The convention was signed March 17, 1910, at Washington, D. C., by Señor LUIS ANDERSON, Plenipotentiary of Costa Rica, and Dr. BELISARDO PORRAS, of Panama.

CABLE CONCESSION.

Under date of August 20, 1910, the President of Costa Rica approved a contract entered into between the Secretary of the Interior and Mr. EDMUND J. REES, for the establishment of an office for submarine cables in Port Limon or any other point of the Republic.

COMPULSORY REGISTRATION OF INFECTIOUS DISEASES.

On September 22, the Constitutional Congress of Costa Rica passed a law providing that all physicians, hotel keepers, and managers of asylums, factories, sanatoriums, and other public or private establishments shall immediately report to the Secretary of Commerce and Police, the local authorities, or the Faculty of Medicine, all cases of infectious or contagious diseases coming under their observation.

**IMMIGRATION IN 1909-10.**

According to official statistics for the fiscal year 1909-10 the number of immigrants arriving in the Republic of Cuba totaled 32,606, of which 26,699, or nearly 82 per cent, were males and 5,907 were females.

Spain contributed the largest number of immigrants, that country furnishing 21,722 males and 4,225 females, a total of 25,947, or nearly 80 per cent.

Other countries furnished male and female immigrants in the order named: United States, 1,668; neighboring West India islands, 1,233; British Empire, 1,172; Porto Rico, 658; Turkey, 616; France, 235; Mexico, 189; South America, 156, and Germany, 112.

BUDGET FOR 1910-11.

The budget law for 1910-11 promulgated by the Executive of the Republic estimates the revenues at \$34,779,680, distributed as follows:

Custom revenues	\$24, 737, 580. 00
Consular fees.....	386, 000. 00
Communication revenues.....	862, 000. 00
Internal revenue	896, 000. 00
Revenues from Government real estate and rights.....	360, 000. 00
Miscellaneous revenues.....	238, 100. 00
Money refunded by municipalities for sanitary services.....	600, 000. 00
National lottery.....	3, 000, 000. 00
Total production as special taxes for service of the \$35,000,000 loan..	3, 700, 000. 00
Total.....	34, 779, 680. 00

The expenses for the same year are apportioned as follows:

For the payment of interest and amortization of the \$35,000,000 loan..	\$2, 770, 000. 00
Expenses in the collection of special taxes.....	423, 782. 00
Expenses of the legislative power.....	857, 220. 00
Interest of the foreign debt.....	495, 000. 00
Interest and amortization of the internal debt.....	650, 000. 00
Judicial power.....	1, 748, 405. 00
Presidency of the Republic.....	150, 120. 00

Department of State.....	\$689,394.00
Department of Justice.....	209,840.00
Department of the Interior.....	9,014,554.46
Department of Finance.....	2,524,817.25
Department of Public Instruction.....	4,140,542.27
Department of Public Works.....	2,415,360.00
Department of Health.....	4,114,265.01
Department of Agriculture, Commerce, and Labor.....	793,300.00
Total.....	30,996,599.99

The surplus of \$3,783,080.01 is to be expended in the following manner:

For the public in the whole Republic.....	\$3,000,000.00
For emergencies, contracts, etc.....	783,080.01
Total.....	3,783,080.01

SANTIAGO-BAYAMO RAILROAD.

The new railroad line between Santiago de Cuba and Bayamo by way of Baire and Jiguani was formally inaugurated on October 4, 1910.



MAP SHOWING RAILROADS IN OPERATION AND PROJECTED LINES IN CUBA.

AGRICULTURAL SCHOOLS.

By virtue of a decree dated the 28th of September last the Minister of Agriculture of the Republic has issued invitations for the submission of bids for the construction of agricultural schools in the Provinces of Matanzas and Santa Clara. One school is to be located in Colon, under the name of "Alvaro Reinoso," and the other at the capital of the latter Province, with the name of "Juan Bautista Jiménez."

SUGAR OUTPUT IN 1909-10.

According to statistics recently issued by the Department of Finance of Cuba, the sugar production of the Republic during the season of

1909-10 has been the largest ever recorded in the industry of that country. This is clearly shown by the total of 12,549,942 sacks, with a production of 1,808,221 tons of sugar, as compared with 10,567,918 sacks and a production of 1,521,818 tons in the previous season, an increase of 1,982,024 sacks with 286,403 tons.

The increase in the value has also been considerable. The output of 1909-10 was valued at \$112,525,731, whereas that of 1908-9 was worth \$85,808,810, an increase of \$26,716,921.

BIDS FOR THE BUST OF MARTÍ FOR THE PAN AMERICAN UNION.

The Department of State of the Republic has opened a competition for the bust of MARTÍ to be presented by that Government to the Pan American Union. Bids will be received at the department until 3 o'clock p. m., January 11, 1911.

LIVE STOCK IN THE REPUBLIC.

According to statistics received from the Department of Agriculture of Cuba, the live stock in the Republic on June 30, 1910, compared with the same date of 1909, shows the following increase:

	1909.	1910.
Cattle.....	3,075,680	3,098,179
Horses.....	554,902	572,901
Mules.....	58,980	59,994
Asses.....	2,340	2,414

DOMINICAN REPUBLIC

THE BUDGET LAW FOR 1910-11.

The budget law for the fiscal year 1910-11, recently passed by the National Congress of the Dominican Republic, estimates the revenues at a total of \$3,941,500, and appropriates an equal sum to meet the expenses of the Government during the same period. The expenses are distributed among the various departments as follows:

Legislative power.....	\$97,068
Executive power.....	18,300
Judicial power.....	186,432
Interior and Police.....	535,531
Foreign Affairs.....	83,664
Finance and Commerce.....	1,949,304
War and Marine.....	562,424
Justice and Public Instruction.....	212,857
Agriculture and Immigration.....	44,440
Promotion and Communications.....	251,480
Total.....	3,941,500

EXPERIMENTAL SCHOOL FARMS.

The National Congress of the Dominican Republic has just passed a law providing for the establishment of two experimental school farms for the teaching of theoretical and practical agriculture and other rural industries that may be suitable to the country. One of these schools will be located at Cibao and the other at some point in the southern part of the Republic. The sum of \$30,000 is appropriated for this purpose.

IMPORTANT LAWS.

The National Congress of the Dominican Republic has recently approved three important laws, to wit, the mining law, the stamp-tax law, and the diplomatic reorganization law, copies of which are on file at the Columbus Memorial Library of the Pan American Union.



THE MESSAGE OF THE PRESIDENT.

The Legation of Ecuador in Washington has courteously furnished the Pan American Union with a copy of President ALFARO's annual message, submitted on August 12, to the National Congress of the Republic in its ordinary sessions of this year.

After dwelling upon the foreign relations maintained with other countries, the Executive states, concerning the fiscal movement in 1909, that the revenues amounted to 15,877,684.67 *sucre*^a and the expenses to 15,564,882.70 *sucre*s, leaving a surplus of 312,801.97 *sucre*s. For several reasons, the loan of 2,500,000 *sucre*s that had been negotiated in London was not effected; it was, however, raised in Guayaquil, and its income was applied, almost entirely, to the payment of fiscal obligations.

In regard to railroads, President ALFARO says that his aim is to build a network of rapid and economic means of communication. He then announces that the work of construction on the Bahía-Quito Railroad is progressing rapidly; that 20 kilometers of this line have already been opened to the public, and that another important section will soon be completed. An *ad referendum* contract was entered into for the construction of a railway line from Puerto Bolívar to Bibbian, where large coal deposits are located; this railroad will traverse a rich mineral zone, and valleys well adapted to the cultivation of cacao, coffee, sugar cane, wheat, etc.; it will, moreover, afford communication between the southern provinces and the coast.

^a The value of the sucre is about 49 cents United States gold.

EXPORTS OF COFFEE AND CACAO FROM GUAYAQUIL.

The exports of coffee from Guayaquil during the years 1907, 1908, and 1909 were as follows: 1907, 8,157 sacks; 1908, 25,598 sacks, and 1909, 24,170 sacks. Most of the Guayaquil coffee is sent to Chile, and the remainder to the interior of the country.

According to data obtained in Guayaquil, the total production of cacao in the Republic during 1909 amounted to 62,065,716 pounds, as compared with 63,196,125 pounds in 1908, a decrease of 1,130,409 pounds. From 1877 until 1908 there has been a steady increase in the production of cacao in Ecuador; in 1877 the output was valued at 20,000 *sucres*; in 1890, at 200,000 *sucres*; in 1905, at 850,000 *sucres*; and in 1908, at 1,450,000 *sucres*.

SCHOOL STATISTICS.

According to the last report of the Minister of Public Instruction of Ecuador, there are in the Republic 1,088 federal primary schools, with a total of 66,759 pupils. The amount spent annually in the maintenance of these schools is 932,249.94 *sucres*.

The number of private primary schools is 259, with an attendance of 18,426 pupils.

There are also 45 municipal primary schools, with 8,720 pupils. This makes a total of 1,392 primary schools in the country, with an attendance of 93,905 pupils.

The sums invested by the nation in the maintenance of public instruction amounts to 1,596,520.85 *sucres*, distributed as follows:

Primary instruction, 922,249.94 *sucres*; secondary instruction, 291,933.81 *sucres*; superior instruction, 243,499.50 *sucres*; government students in the country and abroad, 138,837.60 *sucres*.

BIDS FOR THE AMBATO-ARAJUNO RAILROAD.

On August 24 the Minister of Public Works of Ecuador issued a call for bids for the construction of 117 kilometers of railroad from the city of Ambato to the Arajuno River. The gauge of the line shall be 42 inches; the total value of the rolling stock must not exceed \$149,000; and the maximum price of the work of construction shall be \$2,997,000.

The Government shall issue bonds to the value of 6,242,690 *sucres* guaranteed 6 per cent interest and 1 per cent amortization, with the revenue prescribed by law and such other as may be set aside by the legislature for these works. The construction must be completed within the maximum period of four years. All terms being equal, the bid offering to complete the construction in less time shall be preferred. A premium of 50,000 *sucres* shall be paid for each six months that the work is completed in advance of the specified time.

Bids shall be opened and the contract awarded to the successful bidders within one hundred and eighty days from the date of this call.

The Government binds itself to secure from the respective board the ratification of the contract which may be entered into in accordance with the above basis.

GUATEMALA

FOREIGN TRADE IN 1909.

The total foreign trade of Guatemala in 1909 amounted to \$15,330,536, of which \$5,251,317 was imports and \$10,079,219

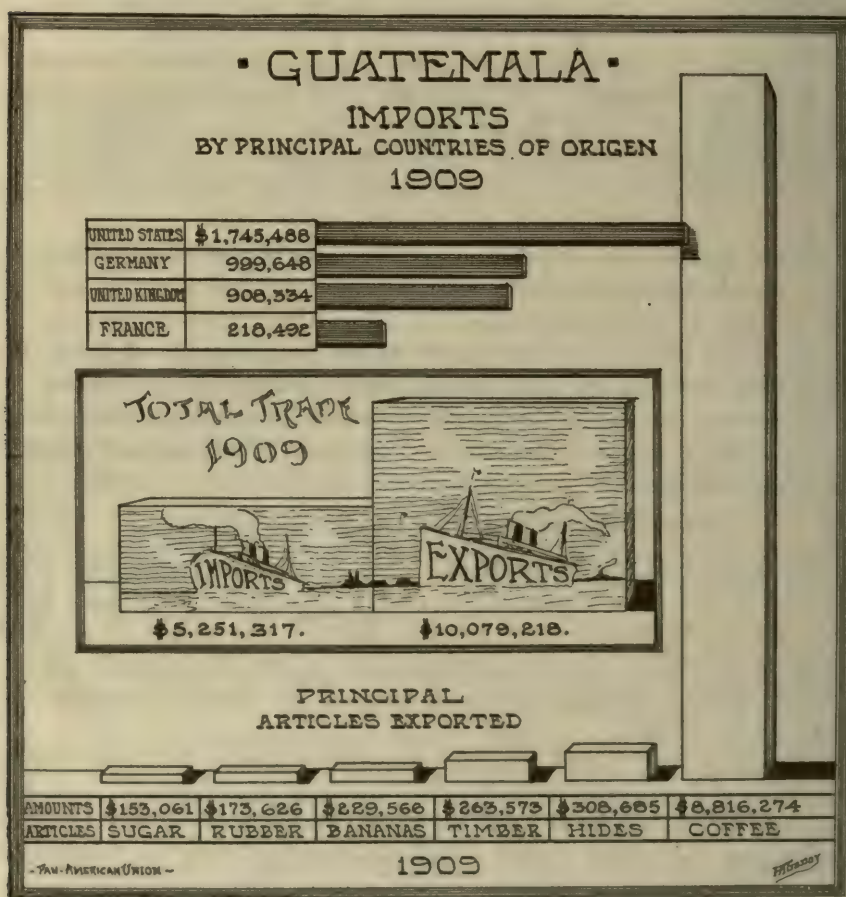


DIAGRAM SHOWING EXPORTS AND IMPORTS OF GUATEMALA FOR THE YEAR 1909.

exports. These figures represent a loss of \$560,269 in the import and a gain of \$3,323,076 in the export trade, as compared with the preceding year.

The list of countries of origin of imports is headed by the United States, with \$1,745,488; Germany occupies second place, with \$999,648; Great Britain follows, with \$908,334; and France, with \$218,492.

MONUMENT TO HIDALGO IN GUATEMALA.

As a tribute of the Guatemalan nation to the memory of HIDALGO, the father of the independence of Mexico, President ESTRADA CABRERA, under date of September 14, 1910, issued a decree providing for the erection of a monument to the great Mexican patriot in the "Paseo de la Reforma," Guatemala City. The cornerstone of the monument was laid, with imposing ceremonies, on September 16, 1910, the one hundredth anniversary of the independence of Mexico.

NEW PRESIDENT OF THE INTERNATIONAL CENTRAL AMERICAN BUREAU.

The Director General of the Pan American Union is in receipt of a communication, dated September 30, stating that on September 15 Dr. MANUEL F. BAROHONA, Delegate from Honduras, succeeded Señor JOSÉ PINTO, Delegate from Guatemala, as President of the International Central American Bureau, of Guatemala City, in accordance with the terms of the Convention of Washington of 1906, which created that institution.

On the same date Dr. EDMUNDO AVALOS, Delegate from Salvador, qualified as Treasurer of the Bureau.

The bureau is now constituted of the following delegates: Señor CARLOS LARA, of Costa Rica; Señor J. PINTO, of Guatemala; Dr. MANUEL F. BARAHONA, of Honduras; Dr. RICARDO CONTRERAS, of Nicaragua; and Dr. EDMUNDO AVALOS, of Salvador.



RESUMPTION OF THE CONSTRUCTION WORK ON THE NATIONAL RAILROAD AND CONCESSION FOR THE CULTIVATION OF BANANAS.

The litigation between the National Railroad Company of Haiti and the Haitian Government, which culminated in the temporary cessation of the construction work on the road which is to run from Cape Haitien to Arcahaie and Port-au-Prince, and from Gonaïves to Hinche and to Gros-Morne, has been adjusted to the satisfaction of both parties, and on August 5, 1910, President SIMON promulgated the modified law relating to the concession granted to Mr. JOHN

CRETH MARSH, President of the Haitian National Railroad Company, for the construction of the above-mentioned railroad.

The original concession, granted by the Haitian Government to the National Railroad Company, by virtue of several specially enacted laws, provided for two railroad lines. In accordance with the law approved August 10, 1905, and promulgated August 11, 1905, one of these lines was to extend from Gonaïves to Hinche and Gros-Morne. The other line, as provided for by the laws voted September 16, 1906, and July 18, 1907, and approved September 27, 1906, and July 27, 1907, respectively, was to run from Cape Haitien to Arcahaie and Port-au-Prince.

On September 10, 1906, the Government ceded to the same company the existing line running from Cape Haitien to Grande-Rivière. This transfer was ratified by the above-mentioned laws of September 16, 1906, and July 18, 1907. According to the modified concession, the two lines will be connected and unified so as to form only one line. These two concessions will be further extended so that the line will revert to the State in fifty years time, dating from the promulgation of the law sanctioning the present agreement. The roadbed of the line from Port-au-Prince to Cape Haitien will follow the easiest incline and the best as well as most practicable route, going through Arcahaie, Saint-Marc, following the Valley of the Artibonite, passing through or near Mirebalais, Las-Caobas, and Hinche, thence through Bahon to the city of Cape Haitien. The plans of each section must be submitted for the approval of the Secretary of Public Works before the execution of the construction work.

The Haitian National Railroad Company will issue bonds for these two lines at the rate of \$20,000 American gold for each kilometer of main line constructed.

The State agrees to provide for the company, dating from the operation of each section of the line, an interest guaranty of 6 per cent per annum on \$20,000 worth of bonds for each kilometer of main line. Also, dating from January 1, 1916, a guaranty of the semestrial payments of one-half per cent on the total amount of the above-mentioned bonds to be issued by the railroad company for these two lines, so that at the expiration of the concessions, fifty years hence, this railway line will revert to the State free from all incumbrances.

In the event that during the life of these concessions, the receipts of the line, after payment of all exploitation and running expenses, should be insufficient to entirely pay the interest and the expenses of the amortization fund, the State will pay only the proportion necessary to make up the difference. But in no case will the State pay more than the amount of its guaranteed interest and amortization.

When the receipts are sufficient to entirely pay the cost of exploitation and maintenance, with the interest and amortization fund, the State will have nothing to pay as long as this situation continues.

All receipts over and above the expenses of exploitation and maintenance, the payment of interest, and of the amortization fund are profits. When these profits amount to 12 per cent a year the state will receive one-sixth of the 12 per cent for the reimbursement of the amounts it may have paid for guarantee of interest and amortization funds and from then on the State will receive a share in these profits of one-sixth of the profits over 12 per cent a year.

All provisions made in the above two original concessions to assure the guarantee of interest will extend and apply equally to the guarantee of the amortization fund. The customs duties set apart by virtue of the said original concessions for the guarantee of interest, as well as the export duties and taxes on fig bananas, will be applied to the guarantee of interest and amortization fund of the above bonds to be issued by the National Railroad Company of Haiti.

Instead of the line being accepted by sections of 20 kilometers, it will be accepted section by section as follows:

(1) Port-au-Prince to Arcahaie; (2) Arcahaie to Mont-Rouis; (3) Mont-Rouis to St. Marc; (4) St. Marc to Petite-Rivière of the Artibonite; (5) Petite-Rivière of the Artibonite to Verrettes; (6) Verrettes to La Chapelle; (7) La Chapelle to Mirebalais; (8) Mirebalais to Lascaobas; (9) Lascaobas to a point across from Thomassico; (10) a point across from Thomassico to Hinche; (11) Hinche to Pignon; (12) Pignon to Savanette; (13) Savanette to Bahun; (14) Bahun to Grande-Rivière; (15) Grande-Rivière to Cape Haitien; (16) Gonaïves to Ennery; (17) Ennery to Savanne-carree; (18) Savanne-carree to St. Michel; (19) St. Michel to Maissade; (20) Maissade to Hinche; (21) Gonaïves to Gros-Morne.

Each section will be accepted by the Department of Public Works when it is completely finished and equipped according to the plans as approved by the department.

All the bonds already issued for the first section of 20 kilometers on the line from Gonaïves to Hinche will be annulled and returned to the State at the expense of the Haitian National Railroad Company of Haiti after the completion of the Gonaïves-Ennery section and after the issue of the new bonds guaranteed by the State.

Eight months following the promulgation of the law sanctioning this agreement the National Railroad Company of Haiti will pay to the State, to the credit of the former shareholders, if it has not settled with them, the sum of \$86,000 American gold, under penalty of foreclosure of the entire line. It will also pay to the State \$75,000 American gold, in three equal payments, three months to elapse between each one. The first payment of \$25,000 must be made three months

following the date fixed for the payment of the \$86,000. Immediately following the first payment of \$25,000 the Cap-Grande-Rivière line, free from all encumbrances and claims, excepting the \$50,000 remaining due to the Government, will be turned over to the National Railroad Company of Haiti, which will construct in accordance with article 3 of the plans and specifications annexed to the contract for the Cap-Port-au-Prince railway line.

The company can, if it so desires, make the above-mentioned payments before the time stipulated.

The company agrees to build under the same terms and within five years a branch line from Port de Paix to Gros Morne, which will be accepted in two sections—Port de Paix-Bassin Bleu, Bassin Bleu-Gros Morne.

The company will be obliged, when so requested, to place a train at the disposal of the President of the Republic and of his civil and military house. No other person shall be carried on this train.

Under penalty of foreclosure, the company must recommence the construction work on the line within two months following the promulgation of the law sanctioning the present contract. It must also finish, under penalty of foreclosure, the entire line within five years from the same date, except for causes beyond their control, duly certified and reported within sixty days to the Department of Public Works.

On the same day that the President sanctioned the bill relating to this railroad he also signed the bill passed by Congress granting to Mr. JAMES MAC DONALD, of New York, a concession for the cultivation and exportation of bananas in that section of the country to be crossed by the National Railroad Company's line from Gonaïves to Hinche and from Cape Haitien to Gros-Morne.

According to the terms of the concession the Haitian Government agrees to lease to Mr. MAC DONALD during fifty full and consecutive years, dating from the promulgation of the law sanctioning the present contract, all the unoccupied public lands found within a radius of 20 kilometers on either side of the railroad which is to cross the Departments of the West, of Artibonite, of the North and Northwest. The concessionaire will annually pay to the Government the sum of \$1 per *carreau* of land suitable for cultivation.

The purpose of the present convention is to introduce the cultivation and purchase of bananas and their exportation during the life of the concession. In view of the difficulty of procuring in Haiti, in sufficient number, good plants for the intended plantations, the concessionaire can import the necessary plants. The concessionaire will have the right to cultivate, purchase, and export sugar cane, vegetables, sugar, all other tropical fruits and products, observing, of course, the customs laws of the country.

During fifteen years dating from the law sanctioning the present contract the concessionaire has the exclusive right to export bananas from all the ports open to commerce or from ports of refuge, but only of the above-mentioned departments, except in that part of the Department of the Ouest (West) which is situated south of Port-au-Prince. It is agreed that the concessionaire will annually pay, in advance, the rental of the lands leased him by virtue of the present concession; that he will guarantee each year at least \$200,000 American gold as export duty on the bananas, dating from the year in which will begin the guaranty of interest in favor of the railroad from Port-au-Prince to Cape Haitien; that in case the amounts allowed the railroad company should be insufficient for the payment of the guaranteed interest or that the Government should be obliged to draw on its ordinary resources for an amount to cover the guaranty of interest of the railroad, the above-mentioned concessionaire obligates himself to pay this balance by advancing the necessary amount out of the export duties and rental to be paid by the banana company for the lease of the land. For all the amounts thus advanced by the concessionaire the State will deliver bonds bearing 6 per cent interest annually. The rentals from lands leased by the concessionaire, according to the present contract, and any surplus of export duties on bananas that will be available after the payment of the guaranty of interests granted to the above railroad will be used first to defray the interest and secondly the principal of the above-mentioned bonds.

If during any year the net receipts of the railroad, from Port-au-Prince to the Cape, from Gonaïves to Hinche, Gros-Morne, and Port-de-Paix, including the customs duties on bananas, campeachy and other woods and products, applied to the guaranty of the said railroad, are sufficient to entirely pay the guaranty granted by the State to the National Railroad Company of Haiti, the banana company will not be obliged, during that year, to guarantee the \$200,000 as a minimum of the export duties. In this case it will only pay the duties due on the actual quantity of bananas exported.

OPENING THE PORT OF FORT LIBERTÉ TO FOREIGN COMMERCE.

On August 4, 1910, the Haitian Congress passed a law opening the port of Fort Liberté to foreign commerce.

SPECIAL SESSION OF CONGRESS CALLED TO CONSIDER THE ESTABLISHMENT OF A NEW BANK AND THE FLOATING OF A FOREIGN LOAN.

A special session of Congress, called by President SIMON, convened on the 1st day of September to consider financial and legislative measures of vital importance to the country.

The financial commission which was sent to Europe early in the summer to study foreign conditions and empowered to conclude, either with the Paris house of the Banque Nationale d'Haiti or any other banking establishment, measures facilitating the economic development of the country has returned, bringing with it a provisional agreement, subject to the approval of Congress, entered into with the Banque de l'Union Parisienne of Paris, for the floating of a foreign loan of 65,000,000 francs to be known as the "5 per cent gold foreign loan" and for the establishment and operation of a new national bank, to take the place of the Banque Nationale d'Haiti, to be called the Banque Nationale de la République d'Haiti. The agreement with the Banque de l'Union Parisienne is, however, to be considered null and void unless the difficulties now pending between the Government and the Banque Nationale d'Haiti are settled on the basis of the provisional agreement drawn up in Paris, July 22, 1910, between the Haitian delegates and the Banque de l'Union Parisienne and ratified by Congress, and, also, unless the Government signs the contract for floating this loan with the above-mentioned banque in accordance with the terms of the agreement drawn up and signed by the Banque and the Haitian delegates.

According to the terms of the provisional agreement providing for the establishment of the new bank, the Haitian Government grants to a group of capitalists, subject to the sanction of Congress, the right to establish and operate a National Bank under the name of Banque Nationale de la République d'Haiti. This body of capitalists is composed of the Banque de l'Union Parisienne, a stock company capitalized at 60,000,000 francs, with headquarters at No. 7 rue Chauchat, Paris, France, and represented in New York by Mr. GEORGES IVER DE LA BRUCHOLLERIE, Messrs. HALLGARTEN & Co., and Messrs. LADENBURG, THALLMANN & Co.; in Berlin, by the Berliner Handelsgesellschaft, and by Dr. J. L. TREITEL of the firm of HALLGARTEN & Co., of New York. It will be exclusively represented vis-à-vis the Haitian Government by the Banque de l'Union Parisienne.

The concession is to run for fifty years dating from the promulgation of the law sanctioning this agreement. A year before the expiration of the concession the two parties must make known their intention of dissolving the bank, or it will continue for another period of twelve years, and so on. The bank will be organized into a French stock company, under the French laws governing the organization of corporations. Its headquarters will be in Paris, the place of meeting of the board of directors. Its principal house will be in Port-au-Prince, and with the advice and consent of the Government it can establish branch houses wherever the exigencies of the service require.

The capital of the bank is fixed at 20,000,000 francs of 40,000 shares of 500 francs each. This capital can be increased one or more times to 60,000,000 francs if the development of the banking business should warrant it.

The bank will be administered at Port-au-Prince by one or more directors appointed by the board of administration. This board will establish the statutes and regulations for the internal administration of the bank. It will also notify the President of the appointment of the director or directors two months before their arrival in Haiti.

The Haitian Government may appoint in the bank a special commissioner, whose duty it shall be to enforce the strict execution of the conditions of the concession and whose functions are limited to the control of the service of the Treasury. The Government may also appoint a special commissioner to Paris. One-third of the personnel of the bank must be Haitians; the bank, however, has the exclusive right to appoint the employees and to fix their salaries.

The bank has the exclusive right to issue bank notes payable in currency on demand. This redemption can only be demanded at the bank in Port-au-Prince. The bills, considered as money, will have legal value in the entire Republic and will be received in all the public countinghouses. The bank must issue these notes as soon as it has been proven that the Government has withdrawn from circulation at least one-half of its paper currency, which must be done within fifteen months, at the latest, following the opening of the bank. The amount of this issue will be \$2,000,000 minimum and \$6,000,000 maximum. In case of the increase of the capital of the bank, this maximum can be increased proportionately. The bank must have on hand, in currency or convertible securities, a third of the value of the notes in circulation. The bank notes can be of 1, 2, 5, 10, 100, or 200 *gourdes*, entire latitude being allowed the bank in fixing the amount of the notes. The value of the *gourde* is to be determined later, when the monetary unit has been fixed. According to Article XII, which deals with this question, the Government agrees to establish a monetary unit on the gold basis. For this purpose it will fix the value and the amount of the fractional currency judged necessary for the needs of circulation. The bank will be intrusted with the issue of this fractional currency which it will have minted at the mint of Paris, and will use it for the withdrawal of the national paper currency and eventually for the retirement of the nickel currency. In the meantime the Government reserves the right, which it now possesses, to withdraw the paper currency by means of American gold. All the details of these operations must be regulated by a government decree, taken after consultation with the bank and which must be put into effect within a year after the opening of the bank. The bank will exert every effort to have the new national currency recognized by the Latin Union.

Dating from the signature of this contract and during the entire period of the concession the Government can not issue any money whatsoever.

In remuneration for its services, the bank will deduct from the debit side of the State a commission of 1 per cent on deposits and one-half per cent on payments made abroad and at home. All the expenses and losses in exchange, occasioned by the transfer of funds abroad, will be borne in the same manner, upon verification, by the State. These transfers of funds will give rise to a supplementary commission of one-half per cent in favor of the bank, payable immediately. Telegraphic dispatches relating to the transfer of funds of the bank will be sent franked by the Government offices and will have priority in transmission over private dispatches.

According to a cable dispatch published in the Washington Post, this agreement was approved with modifications by the Haitian Government on October 21.

A NEW HOME FOR THE PRESIDENT OF THE REPUBLIC.

The "Moniteur," of Haiti, publishes in its issue of September 14, 1910, the text of a law passed by Congress appropriating \$50,000 American gold for the purchase of a home to be presented to President SIMON by the nation as a token of national gratitude for the eminent services he has rendered the country. The choice of the land is left to the President.

NEW MARKET AT CAYES.

On September 7, 1910, President SIMON approved the contract awarded by the Government to Mr. LUBINCIUS LUBIN for the erection of an iron market building at Cayes to cover a space of 1,470.2 meters, and also for the repairing of three of the principal streets of the city. The sum of \$160,000 is allowed for the execution of the work. The Government agrees to furnish, to be maintained at the expense of the concessionnaire, a steam roller and a crusher in order to expedite the work.

ABOLITION OF USE OF IRONS ON PRISONERS.

A bill was introduced in Congress on June 6, 1910, for the abolition in all the prisons of the Republic of the practice of placing prisoners in irons. The old irons are to be melted for use in the public service.

MEDALS AWARDED HAITIAN COFFEE BY THE BRUSSELS EXPOSITION.

According to a recent number of the "Nouvelliste," of Haiti, several gold and silver medals have been awarded Haitian coffee by the Brussels Exposition.

ESTABLISHMENT OF FLOUR MILLS.

On August 23, 1910, President SIMON approved the contract awarded to Mr. AUGUST DUROSIER, of Port au Prince, for the establishment of one or several flour mills in the Departments of the North and West for the manufacture of wheat and banana flour, without, however, opposing the importation of wheat flour. The concessionnaire will pay to the Government for each bag of wheat of 250 pounds received from abroad an import duty of 30 cents American gold. The Government will furnish a site on the coast for the erection of the mills. The concessionnaire agrees to undertake the cultivation of wheat in the regions suitable to this culture and to keep on hand, at the disposal of the Secretary of Agriculture during a period of six years, 1,000 pounds of seed for distribution to the farmers of the country.

ELECTRIC LINE FROM PORT-AU-PRINCE TO PÉTIONVILLE.

Work is soon to be started on an electric line which will run from Port-au-Prince to Petionville. The concession granted for the construction of this line has been modified, so that the length of the trip has been shortened from one hour to fifteen minutes by having the line run through Lalue and Bourdon.

NEW WATERWORKS FOR THE CITY OF PORT-AU-PRINCE.

On September 10 President SIMON approved the bill passed by Congress authorizing the Department of Public Works to expend \$140,000 for the installation of a new system of waterworks in the city of Port-au-Prince. In case the budget receipts are not sufficient to cover this amount, the Government is empowered to contract a loan for this purpose in the best interests of the State.

NEW BILL TO MEET GOVERNMENT EXPENSES.

In order to meet the administrative expenses of the Government for the year 1909-10, the budget estimates not being sufficient to cover them, Congress passed a bill on August 24 authorizing the Government to dispose, until September 30, 1910, of the funds collected or to be collected by the public treasury for the withdrawal of bills of 1, 2, and 5 *gourdes*, without detriment to the provisions of article 6 of the law of August 3, 1909.

BUDGET FOR THE FISCAL YEAR 1910-11.

In its issue of October 1, the "Moniteur," official journal of Haiti, publishes the budget law for the fiscal year 1910-11 passed by Congress on August 28, 1910, and signed September 27, 1910, by President SIMON, in which the expenses are fixed at 7,866,092.24 *gourdes*

and \$3,279,058.78 American gold distributed among the different branches of the administration as follows:

	American gold.	Haitian money.
	<i>Dollars.</i>	<i>Gourdes.</i>
Foreign relations.....	134,701.34	19,780.00
Worship.....	79,650.00	47,800.00
Justice.....	7,100.00	633,114.00
War.....	58,000.00	1,390,583.51
Navy.....	25,000.00	321,303.00
Bank service.....	30,000.00	10,000.00
Agriculture.....	6,170.00	292,928.00
Public instruction.....	21,896.00	1,554,358.00
Finance and commerce.....	46,322.56	1,105,329.96
Receipts and expenditures.....	3,500.00	124,932.00
Interior and general police.....	303,700.00	1,586,814.56
Public debt.....	2,517,901.68	206,481.52
Public works.....	46,117.20	563,108.00
Total.....	3,279,058.78	7,858,559.55

In case the estimated receipts are not sufficient to cover the expenses when it is necessary to pay pensions, salaries, army wages, and rations, or if the Government is obliged to incur expenses for the maintaining of order indispensable to public welfare, the Secretary of Finances is empowered to arrange for a public loan under the most favorable conditions.



COINAGE OF MONEY.

The "Daily Consular and Trade Reports" of the United States Department of Commerce and Labor for October 8, 1910, publish an interesting report from Consul HAEBERLE, of Tegucigalpa, on the coinage of money in Honduras. It is as follows:

On February 16, 1910, the mint of Honduras was opened after having been closed two years, owing to the fact that most of the silver in bars is exported to other countries.

At present (August, 1910) the Government is coining some silver, but chiefly copper coins to replace the amount which disappeared from circulation. According to information received, copper was formerly bought at 1.50 pesos per pound (about 55 cents gold), while $1\frac{1}{2}$ pesos worth of copper coins weighed 1 pound 6 ounces. In other words, if one bought coins to equal the value of 1 pound of copper there was a gain of 6 ounces in actual weight. As a result copper coins began to disappear from circulation. The Government has now gathered about 84,000 copper coins and expects to coin new ones to the amount of 1,000,000. By decree No. 68 in the official publication "La Gaceta" of March 4, 1910, 2-cent pieces were to be coined in addition to the 1-cent pieces. These were to weigh 4.25 grams, tolerance being 5 centigrams, the diameter 19.5 millimeters, and 235 coins to each kilo or 2.2 pounds. The 1-cent pieces were to weigh $2.12\frac{1}{2}$ grams, or one-half of their former weight, tolerance being 5 centigrams, diameter 15 millimeters, and 470 coins to each kilo. This was later changed, so that the actual weight of the 2-cent piece is $3\frac{1}{4}$ grams and of the 1-cent piece 1.9 grams.

The machinery at the mint dates to the time of President Marco Soto, 1877-1883, and consists of 3 presses, 3 rollers, 2 machines for cutting of coin, 1 for milling, and 1 for drying coin. With the present equipment about 20,000 can be turned out daily, although at an average only about 400 pesos worth are made in one week, the making of which costs about 200 pesos.

The mint is equipped with a cupola furnace for melting large quantities of silver, about 100 pounds at a time, one melting furnace which provides for crucibles of about 150 pounds' capacity, apparatus for parting gold and silver, and a charcoal assaying furnace. Of the various coins 4,901 pesos worth were coined during March to June, inclusive.



THE MESSAGE OF THE PRESIDENT.

On September 16, 1910, the one-hundredth anniversary of the independence of the Republic, President PORFIRIO DIAZ, delivered his annual message at the opening session of the Twenty-fifth National Congress. So important and significant are the statements and data contained in that message that we feel it will be of sufficient interest to the readers of the BULLETIN to warrant our reproducing it here in full.

MESSRS. DEPUTIES AND SENATORS: Because my compliance, on this occasion, with a constitutional precept coincides with the celebration of a memorable event in the history of our country, I experience greater pleasure than ever before in coming hither to inform you as to the various interests confided to the care of the executive.

The presence in our midst, in connection with the celebration of the centenary of our independence, to which I but now alluded, of distinguished special representatives of the foreign nations with which Mexico has diplomatic relations, afford unequivocal evidence that those relations are in every respect cordial and satisfactory and that the efforts of our country for years past have reaped their reward by winning for it at last that place in the concert of nations to which she had long been entitled, a result which, gratifying as it is, should make us resolve to carry still higher the good name of the Republic.

FOREIGN RELATIONS.

On July 12 last, according to agreement among the nations concerned, the Fourth International Conference of American States convened at the city of Buenos Aires, and its labors were prolonged into the second half of the month of August. Time enough has not yet elapsed for the resolutions of the conference to be known in detail; but, in view of the spirit informing them and the acknowledged competence of the delegates to the assembly, there is every reason to hope that those resolutions will be highly beneficial to the countries of this continent.

The Senate was pleased to approve, on May 28 last, the convention negotiated and signed in this capital by duly authorized plenipotentiaries, on the 27th of the same month of May, for the connection of the federal telegraph lines of Mexico with the telegraph lines of British Honduras.

A special mission, consisting of two ministers plenipotentiary, appointed to represent the Government and people of Mexico at the funeral of King EDWARD VII of England, discharged satisfactorily the duty assigned to it.

Instructions have been conveyed to the legations of Mexico in foreign countries to hold suitable celebrations in commemoration of the centenary of our independence.

The executive has presented to the Chamber of Deputies a new consular bill, of which the approval during the present period of sessions is to be desired, as it will give a needed impetus to this important branch of the administration.

The ever-growing cordiality of the relations between Mexico and the German Empire has necessitated an increase in the number of our consular representatives in that Empire, and recently a new consul-general was appointed, on which occasion the former jurisdiction of our only consul-general hitherto residing in Germany, with headquarters at the port of Hamburg, was divided into two.

Consular conventions are being negotiated at the present time with Italy, Holland, and Turkey.

Our ambassador in the United States of America, acting under special instructions from his Government, affixed his signature at Washington on June 24 last to a convention for the settlement by arbitration of the long-standing, important, and delicate Chamizal question; and in order that this convention may be carried out, it will, in due season and according to constitutional precept, be submitted to the Senate for consideration and discussion.

In the course of the investigations which the International Boundary Commission has been conducting in the lower Bravo River, 23 new "bancos" were found, which will be dealt with according to the stipulation of the convention between Mexico and the United States on March 20, 1905, for the elimination of such "bancos" in the Bravo and Colorado rivers.

A convention was signed in this city on August 9 last by the minister of foreign relations and the minister plenipotentiary of the Republic of Guatemala for the erection of an international bridge over the Suchiate River, and this convention will also, for constitutional purposes, be referred to the Senate.

INTERIOR DEPARTMENT.

Elections for the federal powers, characterized by the more than usual interest which our citizens took in casting their votes, have been held throughout the country and with regularity, except in one district of the State of Zacatecas, in which the electoral college split into two.

As Congress extended the time originally assigned for the purchase and distribution of corn undertaken for the purpose of obviating a rise in prices due to the failure of last year's crops, the junta having charge of that special service has continued its operations. Altogether more than 76,000 tons of corn have been purchased at an outlay of nearly 6,000,000 pesos, and sales have been effected below cost, thus averting extortionate manipulations. The supply of corn now on hand will enable the junta to continue its operations for as long as necessary, and in any event until the next crops are harvested.

The executive considered that the first centenary of the proclamation of our independence should be commemorated with due pomp and solemnity, and to this end not only was a national centennial commission appointed to organize a series of festivities and to designate local committees throughout the Republic for the same purpose, but numerous entertainments and ceremonies have been arranged under official auspices, including the edification of important institutions, edifices, public improvements, and monuments of art. The great monument to independence was dedicated to-day and the monument erected in honor of JUAREZ will be dedicated shortly.

The bureau for the inspection of immigrants reports that 68,000 persons entered the Republic during the past fiscal year, which is an increase of nearly 40 per cent as compared with the preceding year. After being tried as an experiment in May and June last the registration of emigrants was established at our ports and along our

northern border, as from the beginning of July, thus complementing the records of immigration and serving to determine the true movement of population due to arrivals and departures from the Republic.

The health of this capital has continued good, as the cases of transmissible diseases have diminished and the first half of the year 1910 showed a considerable reduction of mortality as compared with the first half of 1909.

From December 20 to August 20, last, not a single case of yellow fever occurred in any part of the Republic.

A delegate has been appointed to represent the government on the permanent committee of the International Bureau of Public Hygiene, with headquarters at Paris.

A representative was sent to the International Conference held at Paris for the Unification of Methods of Analyzing Food Products, and it has been decided to take part in an international exposition of hygiene which will be held next year at Dresden.

The new General Asylum for the Insane recently inaugurated at Mixcoac, an important institution, consisting of 28 edifices and occupying an area of more than 14 hectares, is destined to replace the old separate asylums for the demented of both sexes in this city, and the special asylum for epileptics which was provisionally established at Texcoco. The new asylum has a capacity of 1,330 inmates and its cost was, approximately, \$2,500,000.

A new public consulting office has been opened in the southeastern quarter of the city, and, like the central consulting office which has now been in operation for some considerable time and has given excellent results, it will dispense treatment to patients who do not need to be sent to the hospital.

There has been no interruption in the prosecution of public works at the capital.

The sewer system has been extended by about 5,000 lineal meters and nearly 800 meters of new house drains have been laid.

New sidewalks have been laid to an area of more than 14,000 square meters.

New sheet asphalt pavement has been laid in the streets to an area of nearly 27,000 square meters; new macadam paving to an area of 15,000 square meters; and a paving of asphalt compound over stone to an area of nearly 10,000 square meters. This latter is an interesting experience, which, if attended with good results, will enable the pavements of the capital to be improved considerable at a low cost.

The new people's park in Valbuena will be inaugurated to-morrow.

The reconstruction of the Mexico City Hall is well advanced, though important portions of the work are still unfinished. The façade on the Plaza de la Constitución has been completed.

Rapid progress continues to be made on the works for the new water supply of the capital. The pumping stations at Nativitas and la Condesa having been completed; their formal dedication, as well as that of the reservoirs built on the heights of Molino del Rey, will take place in a few days as one of the numbers of the Centennial celebration. The remaining portions of the works are being actively prosecuted.

DEPARTMENT OF JUSTICE.

In the local courts (of the Federal District and Territories) the administration of justice continues to fulfill in a regular manner its high and important mission.

On the enactment of the new mining law some of the country judges made title deeds to mines, and in order to obviate this drawback, a circular, No. 193, was issued on July 23, last, explaining to such judges that it is their duty to record mining title deeds and contracts in entire conformity with the provisions of Chapter V and article 6 of the Transient Clauses of the mining act of November 25, 1909.

The commission which has in hand the revision of the penal code, under the direction of the department of justice, continues to study amendments proper to be made in that body of law and reports that it is on the eve of completing its labors.

The transactions recorded in the public registry of the capital, during the first half of the current calendar year, amounted to \$200,975,136. The transactions recorded during the first half of the previous year amounted to \$971,218,938 and the enormous difference of \$770,243,802 is due to the fact that in the month of April last year two transactions in railways, involving \$812,580,216, were recorded, but aside from that one item of exceptional magnitude, it appears that there was a net gain of \$42,336,414 in the first half of the current year as compared with the corresponding period of last year.

DEPARTMENT OF PUBLIC INSTRUCTION.

There are at present in the Federal District and Territories, subject to the jurisdiction of the Department of Public Instruction and the Fine Arts, 641 primary schools, of which 52 are superior primary, 534 elementary primary, and 55 night schools. The total enrollments, according to the latest reports available, are 83,234 pupils.

In addition there are 6 kindergartens, with 1,269 pupils, also under the jurisdiction of the Department of Public Instruction.

The number of masters imparting the rudiments of education in the above-named establishments is 2,371, not including the several headmasters.

On the 6th instant all the children attending the primary schools assembled in vast open spaces around the Mexican flag, in the presence of the political authorities, made a solemn promise to live ever united to it and to one another, in order to assure for all time the liberty and progress of their country, of which the flag is the symbol. The Department of Public Instruction invited the state governments to organize similar ceremonies throughout the Republic.

On April 7 last, a law was enacted creating a national institute of advanced studies and setting forth the basic principals of this new foundation, which will enable those who have taken the course at any of the professional schools to complete their education and by means of which it will be possible to coordinate the scientific investigations of our higher seats of learning and to enhance the value of the Republic's cooperation with other nations in enlarging the boundaries of knowledge.

With the new institute just mentioned, and with the schools of law, medicine, and engineering, with that of the fine arts, as far as architecture is concerned, and the preparatory school, we now possess a complete fundamental system of seats of learning, and thus it has become possible to organize the National University of Mexico, which is destined to give a uniform direction to the best educational aspirations of the Republic. The law creating the university was promulgated on May 26 last.

Several well known foreign professors have been engaged for the institution of advanced studies and will shortly inaugurate their lectures.

Important improvements have been introduced in the present courses of the National School of Engineers, the Academy of Fine Arts, and the National Conservatory of Music, in order to graduate more thoroughly the progress of the alumni and give them greater liberty to pursue their studies according to their individual aptitude.

Pending the completion of the new edifice of the historical museum, provisional arrangements for the installation of same have been effected and many of the objects which it contains have been classified.

The remains of Xochicalco have been repaired, the numerous sculptured stones which had fallen having been restored to their places in the ruined palace.

In order to restore to the parish church of Dolores-Hidalgo, the appearance which it had when the Father of our Country was in charge of it, directions were given for the demolition of certain modern structures surrounding it.

In addition, the house built by MORELOS and inhabited by that illustrious hero, in the city of Morelia, has been acquired by the nation.

The Seventeenth International Congress of Americanists, which held its initial sessions in the month of May last, in the Argentine Republic, where it was attended

by delegates from the Government of Mexico, has just held another series of sessions in this capital, in response to a special invitation from the Department of Public Instruction, and as a compliment to the first centenary of Mexican independence.

Between January 1 and June 30 of the present year, 2,265 land-title deeds were issued, comprising an area of 205,563 hectares, yielding to the federal exchequer the sum of \$154,457.

In accordance with the decree of September 18, 1909, and the provisions of the current budget, the Agrarian Bureau entered, as from July last, upon the discharge of its functions, which are chiefly the resurvey, measurements, and explorations of vacant lands.

The Geographical Exploration Commission finished the printing of the general map of the Republic for 1910, and the wall map of the State of Morelos. The commission has also published six more separate maps of the divisions of the general map, to a scale of one hundred-thousandth. It has fixed astronomically the situation of 49 points in the States of Chihuahua, Coahuila, Durango, Oaxaca, and Yucatan; has determined the elevation above sea level of 182 other points; and has effected tachymetrical surveys of an aggregate distance of 700 kilometers with a view to formation of new maps of separate portions of our territory.

The Geodetic Commission has continued its work of triangulation for the survey of an arc of meridian 98° W. of Greenwich. It has also completed a project of triangulation along parallel of latitude $25^{\circ} 30'$ N., between Guanacevi and Monterey and made observations as to gravity at Zacatlan, Tlaxcalo, Chalchicomula, and Orizaba, besides doing its indoor work, including all the required calculations.

The Government has accepted the invitation extended it to take part in the San Antonio fair and is now preparing an exhibit.

Franchises were granted for a Japanese exposition in this city in order to familiarize our people with the manufactures of Japan, which henceforth can be imported direct, owing to the establishment of a line of steamships between Japanese and Mexican ports.

Only 881 title deeds to mines, embracing 13,737 claims, were issued in the second half of the last fiscal year (January to June, 1910), which, added to the 1,367 title deeds issued in the first half of the fiscal year, make a total for the year of 2,248 title deeds, embracing 35,206 claims of 1 hectare each, as compared with the preceding year, a falling off of 47 per cent in the number of title deeds issued.

The federal agricultural services have been reorganized, in accordance with the laws of December 21, 1909.

The new General Bureau of Agriculture, divided into five departments, entered July 1 last upon the discharge of its duties, which are to promote the interests of farming and stock breeding and to make a study of agrarian problems.

DEPARTMENT OF COMMUNICATIONS AND PUBLIC WORKS.

A beginning has been made in the erection of that part of the steel framework of the new federal legislative palace which corresponds with the east and west transepts, and the stairway of the principal façade.

The greater part of the marble facing of the four fronts of the National Theater is in place and the stage machinery has been installed.

The stonework of the four outer fronts of the palace of communications, as well as of the inner courtyard, has been completed.

The additions to railways under federal jurisdiction since April last have been 239 kilometers, and those railways now aggregate 19,719 kilometers, so that if the 4,840 kilometers of railways subject to the jurisdiction of the States be added, we obtain a total of 24,559 kilometers as the present length of railways in the Republic.

The progress in the postal service during the second half of last fiscal year was as follows:

Two agencies and four ambulant offices were established, giving a total of 2,843 post-offices of different kinds in the Republic.

The pieces of mail matter handled by the post-offices numbered 108,000,000, which, added to the number handled in the previous half year, give a total movement for the fiscal year of 202,000,000 pieces.

The progress of the federal telegraph lines in the second half of last fiscal year was as follows: New wires aggregating 5,576 kilometers in length were strung, and old lines of an aggregate wire length of 1,776 kilometers were discontinued, resulting in a net gain of 3,800 kilometers.

A convention has been adjusted and has been approved by this chamber for the connection of the telegraph lines of Mexico with those of Belize, or British Honduras.

The telephone service which for some time past has been in operation between Torreon, Lerdo, and Gomez Palacio lines and under a concession from the Federation, has been extended to the town of Mapimi, State of Durango.

A federal telephone service between this capital and the town of El Oro de Hidalgo, State of Mexico, has been established for the convenience of the various mining concerns of that locality.

FINANCIAL DEPARTMENT.

The two principal sources of revenue to the federal exchequer showed a marked upward movement last fiscal year as compared with the preceding fiscal year.

Thus the custom-house revenue yielded in 1909-10 8,000,000 *pesos* more and the stamp revenue over 1,500,000 *pesos* more than in the preceding fiscal year.

The other sources of revenue also show some improvement, and though the municipal receipts were stationary, this is to be attributed to the reduction of the meat tax.

Crop prospects are sufficiently encouraging in some States of the Republic, and if in addition to this fact it be considered that the volume of business during the course of the present calendar year has been satisfactory, we may conclude that the depression which Mexico suffered as a consequence of the recent world-wide crisis has disappeared altogether, or at least that only isolated vestiges of it remain.

The federal executive deemed fit to sell the shares which it owned in the Veracruz and Pacific or Veracruz and Isthmus Railroad, representing the total share capital of that company, to the National Railways of Mexico, with a view to vesting in the last-named corporation the management of all routes of communication in which the Government is interested as a stockholder. The transaction was consummated on satisfactory terms.

DEPARTMENT OF WAR AND MARINE.

At the beginning of June last, there was a disturbance of the peace at Valladolid, Yucatan, in the shape of an armed rebellion against the constituted authorities; but, in all haste, a sufficient force was dispatched to quell the uprising; and, with the cooperation of the state militia, that force quickly attained the desired object, and with such thoroughness that neither wandering bands nor isolated centers of disorder were left.

The ringleaders of the movement, as well as other persons implicated therein, were court-martialed; and being found guilty, three of them were sentenced to death and executed according to law.

The smokeless powder factory, having been completed, will shortly be inaugurated. Its annual capacity is 50,000 kilos of powder of the best quality.

As the requirements of the service demanded special facilities for charging all kinds of projectiles and other ammunition needed for the firearms used by our army, it has been decided to create a new establishment called "Laboratorio de Municiones y Artificios," to be installed in the old Belem paper factory, which has been purchased for

the war department and where also barracks will be built for the regiment of mountain artillery and the transport service.

A riding course equal to the best of its kind abroad has been added to the school of gunnery at this capital, and the various mounted corps have begun to use it for regular exercises in horsemanship.

The transformation of mountain guns into rapid-fire guns has been completed, a system of Mexican invention being used in the process, which increases the wearing qualities of the material at a comparatively small expense to the exchequer.

The 4,000 "Porfirio Diaz" automatic rifles are about ready for delivery.

The 240-millimeter guns, intended for the defense of the port of Salina Cruz, are nearly ready and, in consequence, work on the emplacements for those powerful pieces of artillery is being actively pushed.

As soon as the new post-office was inaugurated, plans were formed for utilizing the greater part of the site of the old post-office for the erection of offices for the Department of War and Marine.

The work entailed by this project was rapidly pushed and the War Department is now installed in its new offices, which are admirably adapted for their object.

MESSRS. DEPUTIES AND SENATORS: The foregoing review is a palmary proof that the present condition of the Republic justifies the assured confidence with which the executive, barring unexpected occurrences, looks forward to a smooth and prosperous future, in harmony with the auguries of peace and progress which, for some years back, have been the characteristic feature of the situation.

The Government can always rely on the support of the people who seem now to have acquired the conviction that, only under the sway of peace, industry, and legality, can the progress of nations be achieved.

And, thus, relying on the good sense of that same people; relying, too, on the lofty and patriotic spirit of the people's representatives, the executive deems the honorable mission of guiding the national destinies an easy one, especially at a time like this, when, filled with a noble and legitimate pride at the memorable and glorious event which we are celebrating, all of us, from the president of the Republic down to the humblest citizen, unite in a fervent supplication for the abiding happiness of our common country.



THE PROVISIONAL LAW OF GUARANTIES.

The Provisional President, Gen. JUAN D. ESTRADA, issued under date of September 15 a provisional law guaranteeing public liberty, the rights of citizens, and the independent exercise of the judicial power. The most important change effected by the law is the complete reorganization of the judiciary, which is now constituted as follows: A supreme court of justice, with seat at Managua; three courts of appeal in Leon, Granada, and Bluefields, and several district and local courts. Among the most important guaranties are the right of *habeas corpus* and the right of trial by jury.

NEW CABINET.

Provisional President ESTRADA has constituted his cabinet as follows: Minister of Foreign Affairs, Señor TOMÁS MARTINEZ; Minister of the Government, Señor ADOLFO DIAZ; Minister of War, Gen. LUIS MENA; Minister of Hacienda, Señor MARTÍN BENARD; and Minister of Public Works, Señor FERNANDO SOLORZANO.



THE PANAMA-COSTA RICA BOUNDARY.

The National Assembly of the Republic of Panama approved, on September 27, the convention signed at Washington March 17, 1910, by the plenipotentiaries of Panama and Costa Rica, for the submission of the boundary controversy between the two countries.

PROMOTION OF THE SUGAR INDUSTRY.

The Acting President of Panama, by a decree dated the 10th of August, 1910, appropriated the sum of 100,000 *balboas* for the promotion of the sugar industry in the Isthmus. To that end, the manager of the "Banco Hipotecario y Prendario" is authorized to make loans from this sum to individuals or companies applying therefor, provided that such individuals or companies comply with the requirements prescribed by the decree. The loans shall be made in amounts not exceeding 20,000 *balboas*, and at an interest of 7 per cent per annum.



ELECTION OF NEW PRESIDENT.

The Pan American Union is informed that Señor MANUEL GONDRA has just been elected President of the Republic of Paraguay and Señor JUAN GAONA Vice-President, to qualify in December of the present year.

THE BUDGET FOR 1910.

The general budget law of the Republic of Paraguay for 1910 estimates the revenues at a total of 496,000 *pesos* gold and 26,636,000 *pesos* paper. The expenses are fixed at 710,552.16 *pesos* gold and 27,094,948 *pesos* paper, distributed as follows:

INAUGURATION OF THE ACTING PRESIDENT OF PANAMA.

At 3 o'clock on the afternoon of October 5, 1910, Dr. PABLO AROSEMENA was formerly inaugurated Acting President of the Republic to fill the unexpired term of the late President OBALDÍA, who died on March 1, 1910.

After the oath of office was administered to Doctor AROSEMENA, the president of the assembly, Dr. HELIODORO PATIÑO, delivered an eloquent address, concluding as follows:

The pledge that you have made on this important and solemn occasion of your life is the symbol and expression of your lofty duties. As a private individual you have always been a champion of order, a defender of the law, an ally of justice, an eloquent advocate of firm convictions, a great reformer of governmental systems. It would therefore be unfair to doubt that you will not uphold the political standards of your brilliant career, which has always been devoted to the service of your country.

President AROSEMENA then spoke, outlining in eloquent and forceful terms the policies to be followed by his administration. We quote below the most important parts of his speech bearing on the future of the Republic:

Public works, especially means of communication, shall receive the attention of the Government which has to-day been inaugurated. But it is necessary that such works be executed judiciously, economically, after careful study, and for the purpose of meeting urgent and obvious needs. I must honestly confess that I do not feel a great enthusiasm toward the construction of the Central Railroad, an expensive line which would be subjected to maritime competition. This road would not receive from our infant agricultural industry the traffic necessary to maintain itself, and it probably would not produce for many years a revenue sufficient to meet its expenses, which would be considerable in those sections of the country where the rainfall is heavy. But the nation wants it built, and it shall be built. My purpose is not to oppose the desires of the public if these desires be general and do not conflict with principles and interests essential to the protection of the government of the Republic.

I propose, furthermore, to promote the friendly relations already established with all the civilized nations of the world. Public treaties will be religiously fulfilled, and foreigners will be assured the full enjoyment of the rights that our institutions so freely extend to them. Immigration is a natural law, and Governments should confine themselves to favoring it with legal measures. Everything that may induce immigrants to come to our shores shall be done with discretion. Wholesome immigrants bringing to our shores skill and labor will find the Republic's doors wide open, and they will also find that the Panamanians understand how to extend hospitality.

The ties that bind us to the American Union shall be maintained with integrity, and the Treaty of November 18, 1903, shall be maintained without restrictions which might alter its purpose or deprive it of its wide scope. We shall be grateful and loyal to that great nation which, with its immense power, guarantees the independence of the Republic. We have a broad interest in the work on the canal, and I consider, in the remote event of its being threatened, that for its defense we Panamanians are the natural allies of the United States and it is our duty to join her soldiers under the Stars and Stripes.

The economic situation of the Republic is the result of incidental causes. Statistics show that the imports considerably exceed the exports. The balance, however, is covered by the expenditures made by United States in the gigantic task of uniting the two oceans, a work made necessary by the natural and peaceful expansion of the American people, their progress, and safety. It is imperative that the completion of this work, scheduled for 1915, should find the Republic in the possession of its own life, and toward that end we should work, closely united and animated by the sacred purpose of preserving the blessings of independence, peace, law, and honor. To attain this goal, we should promote, with untiring energy, the development of national agriculture, for our soil is admirably adapted to the cultivation of products of world-wide consumption.

INTERNATIONAL ARCHITECTURAL COMPETITION IN HABANA, CUBA.

The Department of Public Works of the Republic of Cuba, in compliance with a presidential decree of July 27, 1910, invites international competition for designs for the presidential palace to be erected in Habana. In accordance with the specifications of this contest, the building is to be constructed in the center of a quadrangular lot, about 43,400 square meters, and within a rectangle, 60 by 80 meters. Its front façade and main entrance to correspond to the larger side of the rectangle. The plans must include the details of each story and the elevation of the different façades; the longitudinal and cross sections must show the elevation of the interior walls; the development and ornamentation of the main staircase should also be shown. Plans, elevations, and sections to be drawn on a scale of 1:100.

The total cost of the construction shall not exceed the sum of \$985,000. This sum to include the construction, ornamentation, drainage, and sanitary, as well as water, gas, and electric-light installations.

Two prizes are to be awarded: One of \$10,000 for the plans accepted by the judges, and the other of \$5,000 for the design considered second in point of excellence.

All plans must be submitted to the office of the Secretary of Public Works, City of Habana, before 3 o'clock on the 15th of April, 1911.

	Pesos, gold.	Pesos, paper.
Legislative Congress.....		877,800
Interior Department.....	15,600.00	7,329,316
Department of Foreign Affairs.....	46,155.80	428,040
Department of Finance.....	19,440.00	3,242,220
Department of Public Debt.....	560,336.36	1,260,000
Department of Justice, Worship, and Public Instruction.....	37,320.00	6,029,900
Department of War and Marine.....	31,700.00	7,927,672
Total.....	710,552.16	27,094,948

YERBA MATÉ.

The following is an interesting report from the American consul at Asuncion:

Yerba maté, or Paraguay tea, is the daily household beverage of the masses of Paraguay, and it is consumed to a great extent also in Brazil and Argentina. It has been introduced into Europe, where its use is increasing.

The tea is the product of a plant belonging to the species *Ilex* of the family of Ilacaceas related to the *Ilex aquifolium*, an evergreen shrub or small tree well known in western Europe. The leaves of this plant are carefully toasted near the place where they are gathered, all the skill required in producing the tea being applied in the process of toasting. This is necessary in order to dry the leaves thoroughly and evenly, without scorching or affecting their flavor by smoke. After toasting, the leaves are sent to the mill, where they are ground to fine powder and packed solidly into bags for market. There is no sorting, grading, cleaning, nor are any means taken to rid the product of impurities or foreign matter. The price to the consumer, put up in neatly wrapped tinfoil packages of 1 kilo (2.2 pounds) each, is about 15 cents gold a pound.

The tea is prepared for drinking in the same manner as ordinary tea, and may be taken with sugar, cream, lemon, or brandy. The universal custom of drinking it is by sucking it through bombillas from maté cups. A bombilla is a tube, which may be of the simplicity of a mere pipestem or an elaborately decorated silver or silver-mounted work of art. Maté cups vary in style from a simple little gourd to interesting specimens of local craftsmanship in silver. The tea is said to be disagreeable at first, but it is readily adopted as a habit when the taste is once acquired.

As an article of commerce yerba maté has steadily increased in importance until it has become one of the leading exports of Paraguay, ranking fourth in value in 1909, when the exports amounted to \$549,639 gold.



THE MESSAGE OF THE PRESIDENT.

On July 28, last, President AUGUSTO B. LEGUIA, of Peru, read his annual message (a copy of which has just been received) at the opening session of the National Congress.

Speaking of the foreign relations, the message states that important events have occurred in this department, and that although

the country had gone through some difficult situations, its interests have been assured and peace has been maintained. Protocols were signed at La Paz on September 15 and 17, 1909, providing for the settlement of the boundary controversy with Bolivia, and on the 8th day of the same month a treaty was signed with Brazil which completes the demarcation of boundaries, initiated in 1851, and establishes general principles of commerce and navigation on the Amazon River. Last April a convention was signed at Bogota for the purpose of settling the boundry claims of Peru and Colombia. This treaty is to be submitted to the arbitral decision of Baron de RIO BRANCO, minister of foreign relations of Braz.

The revenues estimated in the budget for 1909 amounted to £3,075,986; but as only £2,518,062 had been received up to December 31, there was a deficit of £557,924. The general expenses appropriated and reduced by law were made to equal £3,075,512 of the estimated revenues, but only £2,730,215 were verified, in accordance with the budget, by December 31, leaving a deficit of £345,297.

The sum of £60,000 was paid out on the 1909 liquidation account. The statement of *drecits* presented to the treasury by the various ministries shows that £131,067 still remains unpaid, and that the debt has been reduced to £491,057, representing a saving of £154,703. The statements, furthermore, afford excellent proof that the administration of the public finances is steadily evolving into a well-regulated system, enabling it to meet its obligations despite the heavy loss of over five and a half millions in its income during that year.

The Government is giving special attention to the question of guano reproduction and its continued supply to national agriculture. The fear that the supply of guano may become entirely exhausted in the near future is, to a large degree, obviated by the measures adopted by the Government, as follows: The maintenance of the division of guano deposits into zones, the one for export purposes and the other for local consumption; the closing down of the deposits during the incubation period of the birds; the inspection and constant vigilance of the guano zones by the Compañia Administradora and the Peruvian Corporation; the certain rotation established for the exploitation of the deposits; and the permit which has been granted to the above companies to hunt, in behalf of the State, the seals that destroy the guano birds. All these precautions, however, do not prevent the Peruvian Corporation from exporting the guano which the national agriculture so keenly desires to secure and which the Government hopes to obtain without incurring a loss to that corporation.

A proposed arrangement with the Peruvian Corporation is now under discussion, which, if effected, would allow, among other things,

the reservation of all the guano extant along the coast of the Republic in behalf of the national agriculture. In exchange, the corporation would receive an annuity equivalent to its income from the export sale of the guano. This annuity is to be obtained through an increase in the price of the guano to the national agriculturists, thus procuring the desired results by shifting the burden, as it were, to the domestic consumers.

PERU'S NEW CABINET.

Cable dispatches to newspapers convey the information that on October 28 a new cabinet was formed as follows: Premier and Minister of Justice, SALVADOR CAVERO; Minister of Home Affairs, ENRIQUE BAZADRE; Minister of Finance, ENRIQUE OYANGUREN; Minister of War, Colonel PIZARRO; Minister of Foreign Affairs, MELITON PORRAS; Minister of Public Works, JULIO EGOAGUIRRE.

THE SUGAR INDUSTRY.

"Peru To-Day," an interesting illustrated magazine published in Lima, contains an exhaustive article on the cultivation of sugar in the Republic.

According to this article sugar cane was cultivated in Peru as early as 1570. It is only within the past thirty-five or forty years, however, that it has developed into an important industry.

Study has shown that the present production of cane could be increased 50 per cent by means of intensive cultivation and adequate machinery, since Peru is essentially a sugar-producing country. The topographic and climatic conditions are peculiarly favorable to the industry, and, besides the districts already under cultivation, there are many others that could be worked to equally good advantage.

Native labor is principally employed at the plantations; it is cheap and efficient. The daily wage ranges between 50 and 60 cents United States currency. The variety of cane cultivated, its age, and the season, particularly as regards rain, in which it is grown, all have an important influence on the yield of sugar. In the majority of Peruvian estates damp soil is encountered, and it is only recently that particular attention has been given to systematized drainage. In some localities, after the damp soils have been drained, lime is thrown in before the cane is planted; in others, the process differs, maize, rice, and other plants being sown first, and after the crop the cane is planted. Shoots and slips taken from the upper part of the canes are generally used for propagating; but at some plantations the body of the cane is preferred, while at others both are used indiscriminately.

The system of irrigation usually employed is to convey water from the rivers by means of canals, carry it across the fields in small ditches, and then allow it to flow freely along the rows of cane. Drawing water by means of pumps is not generally practiced. Plantations are irrigated anywhere from 8 to 22 times, according to the cane raised. During the dry season each estate is allowed a minimum supply of water, established by law; at other times there are no strict regulations in force. The success of the crop partly depends on summer overflows, and it is at these times that the full supply of water necessary is administered.

The average yield of cane per hectare ranges from 100 to 120 tons, and on well-managed estates it can be raised to 150 tons. It is then allowed to ratoon as long as possible; usually four or five cuts are made. Eighteen to twenty-four months are usually required for the cane to reach maturity, according to the location. The only variety that is cultivated on a large scale is the "Jamaica Amarilla," a large yellow cane which compares favorably with that produced in any part of the world. There are in existence more than 50 sugar estates with a total area under cultivation of 3,000 hectares, producing altogether an annual output of about 150,000 tons. The soils are usually prepared with steam plows and rollers; furrowing is done with plows drawn by oxen.

Some of the planters are earnestly engaged in improving the conditions of their estates, introducing labor-saving devices and modern machinery. The principal sugar-producing districts are scattered over the valleys of Chicama and Lambayeque, and the biggest estates are Casa Grande, Santa Barbara, Roma, Laredo, San Nicolas, Cartavio, and Paramonga.

According to Mr. CESAR BROGGI, the director of the Government Experimental Station for Sugar, the total production in 1910 is estimated at about 165,000 tons, representing \$5,000,000.

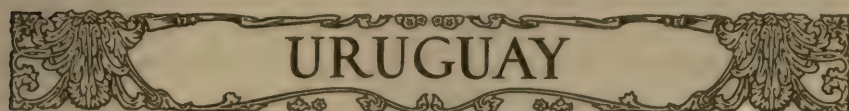


NEW BRIDGE OVER THE ACELUATE.

The new bridge of San Nicolas, over the Acelhuate River, near Apopa, Republic of Salvador, was formally opened on September 21 last, with elaborate and imposing ceremonies. The bridge is a stone structure 13 meters long and about 10 meters high.

NEW MONUMENTS IN SAN SALVADOR.

Two new monuments were dedicated at the capital of Salvador on August 25 and 30. One was erected in memory of Dr. EMILIO ALVAREZ, a Colombian physician, who rendered eminent services to his adopted country; the other as a tribute to Gen. GERARDO BARRIOS, one of Salvador's greatest soldiers and patriots. The latter is an equestrian statue of the General upon a magnificent granite column.



APPROPRIATION BILL FOR 1910-11.

The appropriation bill for 1910-11 recently submitted by President WILLIMAN, of Uruguay, to the General Assembly, estimates the expenses at a total of \$23,333,260.70, or an increase of \$2,257,930.70 over 1909-10, which amounted to \$21,075,330.

The expenses are distributed among the various Departments in the following manner:

Legislative power.....	\$558, 864. 33
Presidency of the Republic.....	76, 471. 40
Foreign Affairs.....	534, 898. 37
Interior.....	3, 412, 250. 88
Finance.....	1, 523, 842. 57
Industries, Labor and Public Instruction.....	2, 308, 793. 75
Public Works.....	374, 321. 91
War and Navy.....	3, 580, 739. 89
Judicial power.....	323, 353. 80
National obligations.....	10, 639, 723. 80
Total.....	23, 333, 260. 70

THE BANK OF THE REPUBLIC IN 1909.

The balance sheet of the "Banco de la República Oriental del Uruguay," an official institution, for December 31, 1909, shows a net profit of \$961,526.59 for the year 1909, against a profit of \$1,020,212 in 1908, or a decrease of \$58,685.41. Considering, however, the conditions under which the business was conducted during that year, the rate of interest which was lower than that of 1908, and the interest paid by the bank to the Government on its large deposits, it is fair to regard the profits of the year 1909 as very gratifying, and, at least as high as those of 1908. From the standpoint of the Government, the results for 1909 are splendid, since the profits of that year represent 14 per cent of the capitalization of the bank.

The net receipts during the last five years were as follows:

1905.....	\$465,078.67
1906.....	448,672.03
1907.....	728,242.66
1908.....	1,020,212.00
1909.....	961,526.59

An examination of the balance sheets for December 31, 1909, shows the steady advance in the operations of the bank. The deposits and credits in 1909 amounted to \$18,580,000, whereas in 1908 they had only reached the sum of \$9,157,000. In 1909, loans and debits made a total of \$23,255,000, compared with \$19,212,000 in 1908.

The actual assets of the bank on December 31, 1909, as indicated by the balance sheets were \$44,615,880. The notes issued by the bank and in circulation on the same date totaled \$16,692,412, and the cash on hand was \$20,036,564.

At the close of 1909, the capital of the bank was constituted as follows:

Authorized capital.....	\$12,000,000.00
Subscribed capital.....	7,627,745.94
Paid-up capital.....	6,954,053.59
Reserve fund.....	597,598.64

LIVE STOCK STATISTICS.

The chargé d'affaires of Uruguay in Washington, Dr. ALFREDO DE CASTRO, has furnished the Pan American Union with an interesting statistical table showing the production of cattle and sheep in Uruguay, compared with other countries. Following is the table referred to:

Countries.	Population.	Cattle.	Sheep	Cattle per capita.	Sheep per capita.
United States.....	88,000,000	72,000,000	53,500,000	0.823	0.608
Austria-Hungary.....	47,000,000	17,500,000	14,000,000	.372	.298
Germany.....	65,000,000	19,330,000	8,000,000	.297	.123
France.....	38,550,000	14,300,000	18,000,000	.371	.467
Italy.....	32,000,000	5,000,000	7,000,000	.156	.218
Russia.....	132,000,000	47,800,000	83,000,000	.362	.628
Spain.....	18,500,000	2,000,000	18,000,000	.105	.973
United Kingdom.....	41,000,000	11,707,000	30,000,000	.285	.731
Canada.....	6,000,000	7,000,000	3,000,000	1.166	.5
Belgium.....	7,000,000	1,790,000	236,000	.256	.033
Portugal.....	6,000,000	817,000	3,100,000	.136	.516
Australia.....	5,000,000	8,500,000	74,000,000	1.7	11.8
Argentine Republic.....	6,800,000	30,000,000	68,000,000	4.412	10.0
Uruguay.....	1,200,000	8,192,000	24,730,000	6.826	20.6

NEW BUILDINGS IN MONTEVIDEO.

The report recently submitted to the Minister of Finance by the General Bureau of Assessments of Montevideo shows that the valuation made on 3,582 cases submitted for its consideration during 1909

amounts to \$21,256,893. The greatest part of this sum was for new buildings, claims, and increased assessments.

The cost of the new private buildings erected during 1909 reached the sum of \$6,836,220, and were assessed at \$4,898,010.62, an increase of \$1,204,617 over the previous year.

The value of the buildings purchased or expropriated by the Government during 1909 amounted to \$1,223,055.

PUBLIC INSTRUCTION IN 1909.

In connection with the school exhibit sent by the Uruguayan Government to the Third International Congress of School Hygiene held in Paris, France, August 2-7, 1910, the Minister of Public Instruction of Uruguay issued a booklet containing considerable data on the extent and value of the furniture, supplies, and text-books used in the public schools of Uruguay.

This booklet, published in both Spanish and English, also contains a detailed statement of the present status of public primary instruction in the Republic, as well as considerable general information showing the rapid progress it has made along educational lines during the last eight years.

According to this statement, in the year 1909 there were 790 public and 263 private schools, a total of 1,053. The number of pupils in attendance at the public schools was 76,042; in the private schools, 19,028, making a total attendance of 95,070. The ratio of pupils to the entire population is given as 9 to each 100 inhabitants. It is estimated that with the 210 additional schools to be opened during the year the total attendance will increase to 117,000, and the proportion correspondingly rise to 10 pupils to each 100 inhabitants.

During this year, \$1,170,720 was appropriated for the maintenance of the public schools, an amount representing one-eighteenth of the total annual appropriations of the Republic. The per capita educational tax, per pupil in attendance, is \$15.



NEW RAILROAD LINE.

The Government of Venezuela and Mr. PABLO FELIPE GUERRA have entered into a contract for the construction of a railroad line from the Orinoco or the Caroní Rivers to the town of El Callao. This line will cross the auriferous zone of the Yurari and must be completed within four years.

NEW NATIONAL INDUSTRY.

By a presidential decree, Señor MIGUEL M. HERRERA has been authorized to establish and operate a factory for the manufacture of clay and porcelain ware and glazed tiles with domestic raw materials. The duration of the concession, which is an exclusive privilege, is for ten years.

THE RAILWAY SYSTEM.

According to the Statistical Year Book of Venezuela, the mileage of the railroads at present operating in the Republic is 792.17 kilometers, and the trains run a mean distance of 2,956 kilometers daily.

In 1908, 413,002 passengers were carried on these lines and the receipts derived amounted to 1,306,539.88 bolivars; the freight transported during that year totaled 183,833,634 kilos. The gross receipts of the 11 railways aggregated 8,878,127.51 bolivars, and the expenditures 6,123,207.67 bolivars.

The following are the railroads operating in the country, with the date of commencement of operations:

The La Guayra-Caracas Railway, 1883; Great Venezuelan Railway, 1894; The Central Railway, 1887; The Maiquetía Railway, 1896; The Puerto Cabello-Valencia Railway, 1888; The Carenero Railway, 1899; The Coro-La Vela Railway, 1898; The Bolivar Railway, 1895; The Guanta Railway, 1899; The La Ceiba Railway, 1895; and the Tachira Railway, 1896.

MARITIME MOVEMENT IN 1909.

The total imports for the year 1909 were carried by 645 ships with a total tonnage of 937,689 tons; of this fleet 444 were steamers and 201 were sailing vessels. The export trade was handled by 819 ships of 915,207 total tonnage, 456 steamers, and 363 sailing vessels.

BANKS.

The capital of the three banks in the Republic is 19,250,000 bolivars, and on December 31, 1908, they had issued bank notes to the value of 4,676,000 bolivars. Of this amount 2,686,720 bolivars were in circulation.

The cash on hand totaled 7,443,836.83 bolivars, divided among the banks as follows:

	Bolivars.
The Bank of Venezuela.....	4,619,377.91
The Bank of Caracas.....	1,420,851.35
The Bank of Maracaibo.....	1,403,607.57
Specie distribution of cash on hand:	
Gold.....	2,368,626.27
Silver.....	3,956,186.56
Bank notes.....	1,008,004.00
Nickel.....	111,020.00

PUBLIC DEBT.

On December 31, 1909, the Venezuelan public debt amounted to 207,995,052.72 bolivars, making a debt of 78 bolivars per capita.

During the last five years the debt, including the awards of the Joint Commissions, has been as follows:

	Bolivars.
1905.....	224, 708, 217. 71
1906.....	241, 137, 187. 96
1907.....	226, 654, 479. 69
1908.....	217, 201, 178. 91
1909.....	207, 995, 052. 72

The claims awarded by the Joint Commissions amounted to 38,385,411.94 *bolivares* up to 1909; in other words, in less than seven years the amount of 25,648,679.79 *bolivares* had been paid off, reducing the debt to 13,292,544.44 *bolivares*. The difference of 555,812.90 *bolivares* is due to exchange, calculated in 1907, when the balance due to the three favored nations was canceled. For the same reason there will probably be a difference between the 13,292,544.44 *bolivares* and the true debt.

REORGANIZATION OF THE CONSULAR SERVICE.

One of the recent issues of the "Gaceta Oficial" of the Republic contains the text of a law of the National Congress reorganizing the Venezuelan Consular Service. This law will undoubtedly increase the efficiency of this important service. This is only one of the many improvements that the administration of President Gomez is introducing in all branches of the Government.

BUDGET FOR 1910-11.

The budget law for 1910-11, recently passed by the National Congress and approved by the President of the Republic, estimates the public revenues at 48,000,000 *bolivares*, and appropriates an equal amount to meet the expenses of the Government. The receipts and expenditures are estimated as follows:

Probable income.	Bolivares.	Expenditures.	Bolivares.
Custom duties and parcels post.....	20, 250, 000	Interior relations.....	10, 032, 481
Extraordinary surcharge of 30 per cent. .	6, 075, 000	Exterior relations.....	986, 460
Surcharge of 25 per cent.....	5, 062, 500	Treasury and public credit.....	18, 589, 403
Cigarette paper and stamp monopoly....	5, 875, 000	War and marine.....	7, 994, 809
Rent of salt monopoly.....	3, 750, 000	Public instruction.....	3, 412, 386
Liquors (revenue tax).....	3, 060, 000	Commerce (fomento).....	3, 361, 235
Transit tax.....	350, 000	Public works.....	2, 373, 226
All other sources.....	4, 587, 500	Extraordinary expenses.....	1, 250, 000
Total.....	48, 000, 000	Total.....	48, 000, 000

NOTE.—The value of the bolivare is about 20 cents United States gold.

IMPORTANT CONCESSIONS.

The Venezuelan Executive has recently approved the following concessions:

To Señor ANGEL PONS, for the cultivation and exploitation of fibers, such as sisal, cocuy, etc., by use of modern machinery and apparatus.

To Señor JUAN SANTANA DE LEON, for the establishment of one or more plants for refining pork lard. This is an exclusive privilege for six years.

To LISIS MERCHAN, to exploit, export, and sell, during a term of four years, guano, phosphates, and other fertilizing substances that may be found in the public lands of the islands and islets on the Caribbean Sea.

To Señor ALFREDO SHARFFONORTH for the exploitation, during thirty years, of the "El Olimpo" mines, in the District of Sucre, State of Miranda.





SEÑOR MANUEL GONDRA

President of Paraguay.

Señor Gondra, inaugurated President of the Republic of Paraguay November 25, 1910, was born January 1, 1872. Educated at the National College, he later became one of its professors. He is one of the leading educators of the Republic and has devoted many years to study and research in political government, as well as writing several valuable treatises on this subject. Señor Gondra has been Minister to Brazil, Paraguayan representative to the Third Pan American Conference, and Minister of Foreign Relations. In recognition of his services to his country he was elected its President for the ensuing term.

BULLETIN

OF THE PAN AMERICAN UNION



VOL. XXXI.

DECEMBER, 1910.

NO. 6

ONE of the most important subdivisions of the practical work of the Pan American Union which is now receiving special attention is the classification and translation of all the changes in tariffs of the Latin-American Republics, so that this office may be able to answer immediately the numerous inquiries which come to it from all over the world as to tariffs. The exchange of trade is so dependent upon tariffs and so directly affected by them, that it is the determination of the Union to perfect this feature of its work to the highest degree possible. It is now the intention, moreover, to publish from time to time sections of the tariffs of the Latin-American Republics classified under various industries, so that, for instance, an exporter of machinery can, by consulting one pamphlet, learn what are the tariffs in all these countries relating to the importation of machinery. The Union has always endeavored to collect and give out the latest information concerning tariffs, but in the past there has been difficulty in securing immediately from the various Governments all the changes which are made. It is now believed that a system has been started by which this difficulty can be overcome. Much will depend, however, upon the cooperation of the Latin-American Governments in speedily providing the Union with any modifications which may be determined either by acts of their congresses or presidential decrees.

THE PAN AMERICAN SOCIETY OF THE UNITED STATES.

In the November issue of the BULLETIN it was announced that there was well under way a plan, initiated by this office, to organize in New York City a Pan American Society of the United States, one of whose principal purposes should be that of providing a proper welcome on their arrival in the United States to representative men from the Latin-American countries. It is a pleasure now to state that so many favorable



PRESIDENT AND VICE-PRESIDENT OF ARGENTINA AND CABINET.

Dr. Indalecio Gómez, Minister of Interior. Dr. Ernesto Bosch, Minister of Foreign Affairs and Worship. Dr. José M. Garro, Minister of Justice and Public Instruction. Dr. Ezequiel Ramos Mexía, Minister of Public Works.

Dr. Roque Sáenz Peña, President. Dr. Victorino de la Plaza, Vice-President.

Dr. José M. Rosa, Minister of Finance. Señor Don Eleodoro Lobos, Minister of Agriculture. Gen. Gregorio Velez, Minister of War. Capt. J. P. Sáenz Valiente, Minister of Marine.

responses have been received to this suggestion that there seems to be no doubt whatever of the success of the movement. Letters which have come from men prominent in the official, financial, professional, and social life of New York, lending encouragement to the undertaking and expressing sympathy with it, are almost surprising in their number and certainly mark the beginning of a new era in the appreciation by prominent North Americans of the importance of getting into closer touch with their fellow-men of Latin America. It is now hoped that full details as to the actual organization of this society can be published in the January issue of the BULLETIN.

THE PAN AMERICAN COMMERCIAL CONFERENCE.

The project mentioned for the first time in the November issue of the BULLETIN for holding under the auspices of the Pan American Union a conference of men interested in the development of closer trade relations among the American Republics has been received kindly and even enthusiastically by a large number of chambers of commerce and boards of trade throughout the United States, and by manufacturing, exporting, and importing firms which wish to build up an exchange of business with corresponding agencies in Latin America. It now seems best that this conference should meet during the first week of February. If half the delegates of commercial organizations and of business houses attend who have already intimated their desire to participate, great good will surely be accomplished. One of the features of the conference which appears to appeal to everybody is the proposed discussion of the exchange of trade; that is, the development of import as well as export business, or the helping of Latin America to find a market in the United States for its products as well as helping the United States to find a market in Latin America for its exports. Effort of this kind will be appreciated in the Latin-American countries and will insure the cooperation of diplomatic and consular officers of these countries who wish to do what they can to enlarge the markets of their respective peoples. The friendly interest and aid which the State Department is giving the Pan American Union is supported by the similar attitude of the Latin-American diplomats in Washington and consular officers in New York City. By making the gathering a Pan American one and not merely confined to the United States a new precedent will be set for commercial gatherings of this kind and must have a good effect on Pan American relations. Another feature which meets with general approval is the plan to have no resolutions drawn up and discussed or any steps taken which might involve political discussion or any argument embarrassing to the conference. Its object is simply the diffusion of practical information about the development of the exchange of commerce among the American Republics.

THE MINISTER OF PANAMA TO THE UNITED STATES.

Dr. BELISARIO PORRAS, the newly appointed minister of Panama to the United States, has had a long experience not only as a diplomat and educator, but also as a lawyer, and has served his country in many important offices. He has been a Justice of the Supreme Court of Panama, a Representative in the National Assembly, and President of the Municipality of Panama. While in Central America, Doctor PORRAS was professor of international and administrative law at the University of San Salvador, in the Republic of Salvador. He was also professor of law in Managua, Nicaragua. In 1907, he represented his country as a delegate to the Second International Peace Conference at The Hague. Doctor PORRAS has served his country as minister to Brazil and Costa Rica. Early this year he was sent to Washington on a special mission for the adjustment of the boundary question with Costa Rica.

MR. CARNEGIE'S RETURN TO THE UNITED STATES.

The Pan American Union congratulates Mr. ANDREW CARNEGIE on his return, in good health, to the United States after spending the summer and early fall in Scotland. He is deeply interested in everything that pertains to the building up of Pan American friendship and peace, and expresses his pleasure at the usefulness which the new building of the Union, erected largely through his generosity, is exerting in bringing the American nations into closer touch and sympathy. In discussing the medal which was voted him by the Pan American Conference held this last summer in Buenos Aires, he said that he regarded it as one of the greatest honors which had ever been conferred upon him. The resolution covering this medal can be found on pages 796-7 of the November BULLETIN.

"ALL AMERICA" IN LATIN AMERICA.

It is gratifying to note that a very large percentage of the principal newspapers of Latin America from Mexico and Cuba south to Argentina and Chile reproduced in Spanish or Portuguese the entire article written by the Director-General entitled "All America," which appeared in the August number of the North American Review. The Director General wishes to take advantage of this opportunity to thank these papers for the attention they gave a feeble effort on his part to discuss with frankness and truth the remarkable history, progress, and future possibilities of the twenty Latin American nations in the short space at his disposal. He could not begin to do justice to such a topic, and was able to touch only upon a very few salient points.



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DR. BELISARIO PORRAS,

The new Envoy Extraordinary and Minister Plenipotentiary of Panama to the United States.

THE DECEMBER ISSUE OF THE BULLETIN.

Among the principal articles in this issue of the BULLETIN are the following: "Chile's Centennial Celebration;" "Production of Tin in the Americas;" "Possibility for Development in Panama;" "Ancient Temples and Cities of the New World;" "Important Improvements in Haiti;" "Latin America at the Brussels Exposition;" "A Commercial Traveler in Central America," and "The Pan American Railway." Anyone interested in Latin America can not fail, in looking over this list of contents, to appreciate the continued effort that the Union is exerting to make the BULLETIN both informative and interesting. It is absolutely impossible in one issue to cover all of the twenty-one countries, but during the course of the year each one of them receives its share of attention. For example, in the articles enumerated above, we find material relating to Chile, Bolivia, Peru in South America proper, Panama, the connecting link of North and South America, the Central American countries, and Haiti of the Caribbean section. This certainly gives a bird's-eye view which is comprehensive, and yet in any of the preceding numbers there is just as great a variety of material about other countries.

THE MINISTER OF PERU TO PANAMA AND CENTRAL AMERICA.

Señor Don FREDERICO ALFONSO PEZET, the present Minister of Peru to Panama and Central America, has devoted many years of his life in the service of his native country.

In 1884 he accepted a position as the Spanish editor of the "Star and Herald" at Panama, and a few years later was appointed consul of Peru at that point. He was next promoted to the important post of Consul-General to England with headquarters at London and Liverpool. From here he was transferred to a similar position in New York. In 1900, Señor PEZET was honored with the appointment as first secretary of the Peruvian Legation at Washington, where he also had the pleasure of serving as chargé d'affaires for one year. In 1904 he was again appointed to the Central American field and removed his residence from Costa Rica to Panama in 1906. Señor PEZET has made several contributions to literature, his most notable works are "The Question of the Pacific," and "Peru, Her Commerce and Resources." For the latter, he was awarded the Albert medal of the Society of Arts and Commerce in England.

PAN AMERICA AT THE QUILL CLUB.

On Tuesday, November 15, the Mexican ambassador, Señor Don FRANCISCO LEÓN DE LA BARRA, the Minister of Peru, Señor FELIPE PARDO, and the Director General, were the guests of the Quill Club of New York City, at one of the series of special dinners which they give



SEÑOR DR. FEDERICO ALFONSO PEZET,
Minister from Peru to Panama and Central America.

during the winter. This organization is made up of the proprietors and editors of representative publications and leading writers and authors of the country. In view of the growing interest in everything pertaining to Latin America, the club decided to have what might be termed a "Pan American dinner," and hence invited these two representative diplomats from the northern and southern sections of Latin America. Their addresses were most interesting and illuminating and were given the closest attention by one of the largest meetings the club has ever held.

THE PACIFIC COAST CONGRESS IN SAN FRANCISCO.

From the 17th to the 19th of November there was held an important gathering in San Francisco, California. It was named the Pacific Coast Congress, and was called under the auspices of the Merchant Marine League of California, assisted by the commercial organizations of California. The principal subjects that it discussed were merchant marine legislation, the maintenance of a strong battle-ship fleet on the Pacific-coast, the permanent organization of an annual Pacific Coast Congress, and the consideration of the Pacific coast expositions. The invitations to this gathering were signed by Hon. J. V. GILLET, governor of the State of California. The Director General was invited to be one of the guests of this Congress, but was most regretfully obliged to decline because of unalterable engagements which he had already made at other points. The summoning of a congress of this kind and the carrying out of a permanent organization is another expression of the progressive spirit of that section of the United States. It is to be hoped that results most beneficial to its prosperity and commerce will follow. Although the subject is not mentioned in the topics that were taken up, it is probable that this congress will, at another meeting, find it of the highest importance to consider specifically how the Pacific coast can build up an exchange trade with the 8,000 miles of resourceful Pacific coast land of Latin America which reaches from the California-Mexican boundary south to the southern end of Chile and Argentina. While there is no question that California, Oregon, and Washington should do everything they can to build up their trade with Japan, China, and the Philippines, and no one can deny that the Orient has a wonderful future, it must not be forgotten that the ten or twelve Latin American countries bordering on the Pacific Ocean have shown an increase in their commerce, and possess, at the same time, such possibilities that they must in the future offer a field fully as tempting as that of the Far East. San Francisco has proven by its wonderful recovery from the damage of fire and earthquake that it is one of the most enterprising cities of the world, and this very spirit of courage and conquest should cause it to make a careful study of the commercial potentialities of the countries lying to the southeast of California.

THE TRANS-MISSISSIPPI COMMERCIAL CONGRESS.

The twenty-first annual session of the Trans-Mississippi Commercial Congress of the United States was held at San Antonio, one of the principal cities of the State of Texas, from November 22-25. The attendance of representative men, not only from all of the trans-Mississippi States but from other sections of the country and from foreign lands, made it a notable gathering. It is gratifying to record that one of the principal features of its programme was the consideration of Pan American trade relations. In response to a special invitation from the officers of the Congress and by permission of their respective Governments, Señor DON JOAQUIN CALVO, Minister Plenipotentiary of Costa Rica, and Señor DON IGNACIO CALDERON, Minister Plenipotentiary of Bolivia, delivered significant addresses which were listened to most carefully and which must have a helpful influence on increasing trade and better understanding between both Central and South America on the one hand and the United States on the other. Both Mr. CALVO and Mr. CALDERON are men of broad statesmanship and practical knowledge, and what they had to say made a deep impression upon their audience. Hon. WILLIAM J. BRYAN, one of the prominent men of the country, also gave an interesting talk upon South America based upon his recent visit to that part of the world. The Director General who was invited to introduce the Latin-American diplomats participating in the Congress, congratulates Col. I. T. PRYOR, President of the Congress, Hon. FRED W. FLEMING, Chairman of the Executive Committee, and Mr. ARTHUR J. FRANCIS, Secretary, upon the success of every detail of the Congress. The city of San Antonio and its people, moreover, are to be felicitated upon the cordial hospitality which they dispensed to all visitors.

ADVERTISING IN LATIN-AMERICAN NEWSPAPERS.

In response to numerous requests which the Union has been receiving from all parts of the world in regard to advertising rates in newspapers and magazines of Latin America, this office is preparing a list of such rates which will soon be ready for distribution. There is no question that it is just as important for the exporters of the United States to advertise in newspapers and other publications of Latin America in order to build up their trade as it is that they should follow the same methods in making their products known throughout the United States. The standard of newspaper excellence throughout Latin America is much higher than is generally understood in the United States, and these papers have a general circulation among the class of men who would make purchases from manufacturers of the United States. It is interesting to note how advertising men and others who visit this office are not only surprised but



Photograph by Harris Ewing.

SEÑOR DON MANUEL DE FREYRE Y SANTANDER.

First Secretary of the Legation of Peru in Washington.

greatly interested when they look over the principal papers which come to the Union from all sections of Latin America. Their astonishment at the amount of news printed and at the evidences of the influence which these papers exert, together with the extent of their advertising columns, immediately convinces them that it is worth while to consider the advantages of advertising in them what they wish to sell in Latin America.

SURVEY OF THE CENTRAL AMERICAN WATERS.

One of the most important works for the benefit of navigation which should be carried through to completion either by the United States, or by it and other countries working together, is a proper survey of the Atlantic or Caribbean and Gulf waters of Central America. At the present time the knowledge of depths and channels, hidden rocks, reefs, and other conditions of these waters is such as to be a serious handicap to the development of commerce in these waters. The trade on the Atlantic side of Central America is developing so rapidly, not only with the United States, but with all the world, that the number of vessels required to care for this commerce is being continually augmented, and yet each company that puts new vessels on these routes is conscious that it is incurring a risk which could be removed if a proper survey were made. No work that the United States Navy could undertake would be more helpful to the navy itself and to general navigation than the completion of the survey which was started before the recent disturbances in one of the Central American countries became acute. One important reason for this work is the fact that it would cover the waters which form part of the approach to the Panama Canal. It would be unfortunate for this great waterway to be opened and still have its approaches unsafe for navigation. The efforts which A. W. PRESTON, president of the United Fruit Company, which has large interests at stake, is making in favor of this survey are ample evidence of its necessity. That company has one of the largest commercial fleets in the world doing business in these waters, and is constantly adding to the number of its ships which ply between the principal ports of the Atlantic coast of Central America and those of the Gulf and Atlantic coasts of the United States.

THE CONSUL-GENERAL OF ARGENTINA IN NEW YORK.

Señor Don JOSÉ VICENTE FERNANDEZ, the Consul-General of Argentina in New York, has been an attorney of high standing for over a quarter of a century in Argentina. During his professional career he has held many important offices in his country. He was connected with



SEÑOR DON JOSÉ VICENTE FERNANDEZ.

Consul-General of Argentina at New York.

the National Police Department and later became Attorney-General and judge of one of the States of Argentina. He also served in the Ministry of War and Navy and the Ministry of Foreign Affairs. In 1904 he was made Commissioner-General of the Argentine section of the St. Louis World's Fair. Señor FERNANDEZ has now held his present position for seven years.

NEW HANDBOOK ON MEXICO.

There is now such a large demand for thoroughly reliable information in regard to Mexico that the Union is planning, with the aid and cooperation of the Mexican Government, to bring out about the 1st of January a new handbook on that country. The last one issued several years ago is too old in its data to be longer of practical usefulness, and the supply of copies on hand is already completely exhausted. The recent centennial celebration of Mexico has added much to the world's interest in that country, and requests for handbooks or descriptive matter are coming into the Union constantly, not only from the United States, but from other Latin American countries, Europe, and even from the Orient.

NEW MINING LAW OF VENEZUELA.

Venezuela undoubtedly has great mining possibilities, covering an area almost as large as the German Empire or twice that of the State of Texas. It possesses within its extensive area minerals of such variety and value that it ought to experience during the next ten years a remarkable mining development. There have been so many calls for information in regard to its mineral resources that the Union has just translated the new mining law of that country and has it available for distribution.

PROF. BAILEY WILLIS IN LATIN AMERICA.

Prof. BAILEY WILLIS, of the United States Geological Survey, is to be congratulated upon the success of his recent visit to Latin America. He laid before several countries a plan for a general map of the world, and was assured of their cooperation to a degree which means the successful carrying out of his plan. Professor WILLIS has also been selected by the Argentine Government to execute geological surveys of that country. The work is of broad scope, and will require Professor WILLIS's absence from the United States for a period of nearly two years.



PLAZA DEL CONGRESO, AT BUENOS AIRES, ARGENTINA.
The new Capitol shown in the background was but recently completed.

THE CELEBRATION OF CHILE'S CENTENARY

“**E**L DIA DE LA PATRIA” is the attractive phrase applied to the 18th of September, 1910, the “nation’s day,” on which the people of the Republic of Chile celebrated the centenary of their first struggle for independence.

One hundred years ago the existing relations between Spain and her colony in Chile had been severed, and the new and untried principle of self-government had been introduced. The first revolution was rather elective than military, and aimed at local freedom



(From *La Ilustracion, Sud-Americana*, Buenos Aires, September 30, 1910.)

THE VICE-PRESIDENT OF CHILE, THE PRESIDENT OF ARGENTINA, THE MINISTERS OF FOREIGN AFFAIRS OF BOTH REPUBLICS, AND THE COMMITTEE ATTENDING THEM, ON THE BALCONY OF PALACIO EDWARDS.

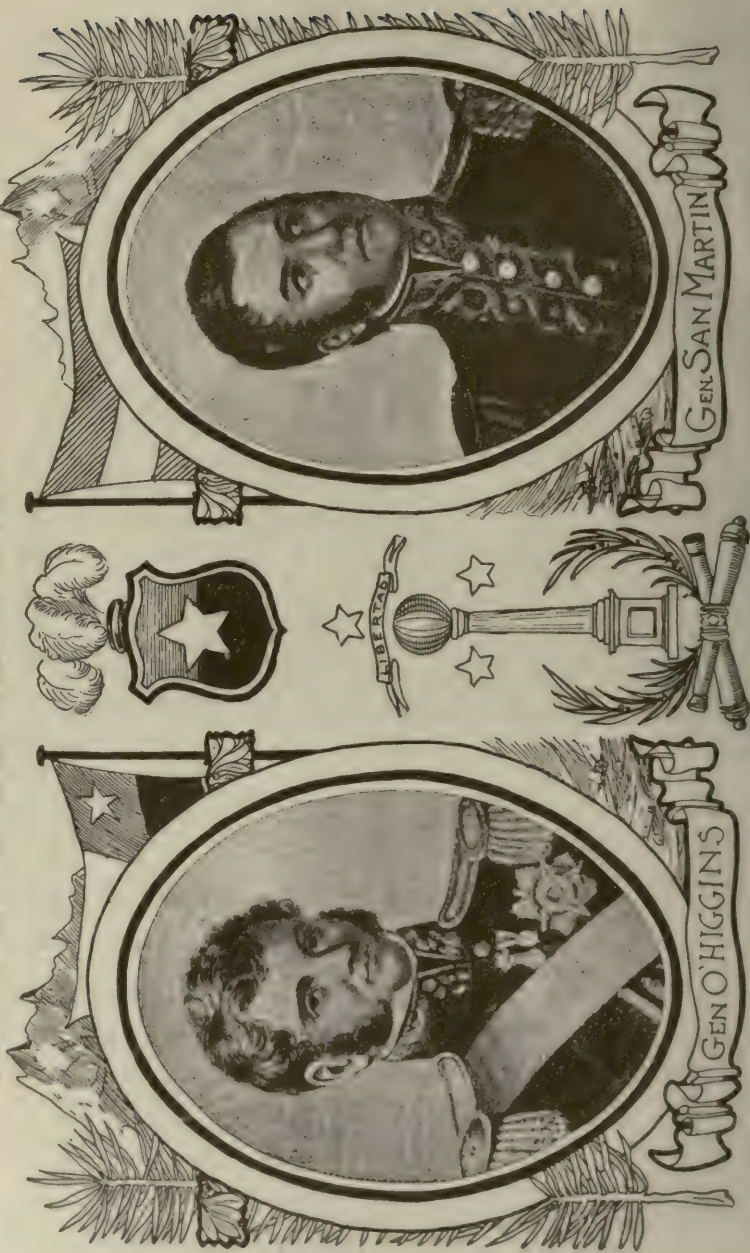
The Palacio Edwards, one of the finest buildings in Santiago, was placed entirely at the disposal of the President of the Argentine Republic during his visit as the nation’s guest at the time of the centennial celebration.

rather than complete independence. But Chile was American, and adherence to a European power was alien to the spirit of the times. Revolution had to be radical, and therefore when the decision was made to repudiate allegiance to Spain the next step was inevitable and led to the establishment of a Republic.

The years of the “Spanish reconquest,” the victories of the army of the patriots, the period of preparation before even a temporary constitution was approved, were needed to weld the thinly populated coast line on the Pacific, a colony of Spain attached to the viceroyalty of Peru, into a nation. But the result shows a Chile to-day ambitious, hopeful, and progressive. Looking back upon the century of action and achievement the nation found itself ready to

1810 CHILE 1910

CIENT AÑOS DE VIDA INDEPENDIENTE



Reproduction from La Prensa, Buenos Aires, September 18, 1910, of their original sketches from historical prints of the two great heroes of independence.

celebrate the centennial anniversary of the first step toward independence, and the month of September just passed was devoted to these festivities.

On this nation's day the most significant event was the laying and dedication of the corner stone of a monument to independence in Santiago, the capital of the Republic. The inspiring feature of the event was the address to the assembled people by the Chilean Minister of Foreign Affairs, Don LUIS IZQUIERDO, who called upon them to reverence their history and the shaft that would memorialize it. He said:

This monument which we are to erect on this site in accordance with a law of the Republic will symbolize the gratitude of the people of Chile to the illustrious men of our struggle for independence. It will symbolize also the glories of our Republic, and will be an eternal lesson, graven in stone and bronze, to speak to us of the pride we must take in the history of the century, to arouse in us the noblest sentiments of love of country.

This monument that will here raise its columns to heaven will teach us the glory of those who lived before independence; of those who read in spite of the embargo upon reading; who thought at a time when thinking was held to be a crime; who dreamed dreams which made them guilty by their very dreaming; and who during our colonial lethargy spoke, perhaps without knowing it, the word that Christ said to Lazarus. It will teach us of the glory of the men of action, of the soldiers who maintained an armed revolt. It will tell us of the glory of those who organized the Republic and gave us the free institutions under which we live. The gratitude of the nation is due to the fathers of the country. The Republic founded by them lives in the shelter of those institutions on which is built the happiness and greatness of Chile.

Of equal interest, too, especially as it showed the whole-hearted participation of the Argentine Republic in this celebration of Chile, was the reply of Señor RODRIGUEZ LARETTA, the Argentine Minister of Foreign Affairs. He illustrated the intimate connection between the two countries at the time of their earliest struggles. He said:

Even if we had wished could we have separated the celebration of our centenaries? Could we have omitted in any triumphal arch across our streets the names of Chacabuco and Maipú, where Chilenos and Argentinos shed their blood together? Could you forget what our soldiers did to aid in the independence of Chile, or could we forget that SAN MARTIN girded your colors about him and raised your flag aloft to emphasize, at the capture of Lima, the definite emancipation of America? To-day we blot out time and distance; we fuse our peoples and our Governments, our regiments and our flags; we join together the names of our illustrious men who fought side by side, and together we recognize that brotherhood which the glorious past has transmitted to us.

This 18th of September was the most solemn yet at the same time the most joyous day of the month. The enthusiasm of the people was noticeable, and they gave unmistakable evidence that the spirit of nationalism was intensely alive. Their feeling of patriotism, symbolized in the monument to independence, has always been strong, but such events as this give substantial proof that it will strengthen still more in years to come.

Besides the dedication ceremony, the people in Santiago were offered a unique spectacle commemorative of the times one hundred years ago. This was a parade, arranged with great attention to historic detail, representing the march of the patriot army into the capital after the victorious battle of Maipú, on April 5, 1818. The reproduction of the uniforms and the military characteristics of the march and the atmosphere of the times at the beginnings of Chilean independence were remarkably well done. In the line one of the most interesting groups were the *granaderos* of General SAN MARTIN, who had come from Buenos Aires to play their part in the celebration.



(From Zig-Zag, Santiago, October 1, 1910.)

During the centennial celebration in Santiago, the Vice-President of Bolivia, who was a guest of the nation, gave a banquet to the Vice-President of Chile. On the left is the Vice-President of Chile, on the right the Vice-President of Bolivia, and in the back is Señor Macario Pinilla, the special ambassador from the latter Republic to the centenary celebration.

They wear today the same uniform worn one hundred years ago. Then came two companies of foot grenadiers, composed of the pupils of the military school and of the school of junior officers. The light infantry, mounted, followed, dressed in the same fashion as the infantry on foot, but the accouterments were green in place of red. Bringing up the rear were the Chilean *granaderos*; they, too, were dressed like the Argentinos, but on their helmets appeared the national coat of arms of Chile.

The entire column halted in front of the statue of SAN MARTIN, where they were saluted by the students of the Argentine Military

College, but in addition to this they were spontaneously saluted by the populace, who bared their heads as they passed and gazed with reverent eyes on the sacred standard that showed in its discolored folds the passage of a century of time.

Another proof, if that were needed, of the intense loyalty displayed by the people on this centennial anniversary of their independence day was the singing of the national anthem by a chorus of school children especially trained for that purpose. There must have been 5,000 children on the public square, and as the band played the accompaniment to the children's voices the whole city seemed filled with melody. Here also the spirit of brotherhood was beautifully displayed, for the music of the Argentine national hymn was given as soon as the notes of that of Chile had died away.

In the afternoon a solemn *Te Deum* was celebrated in the cathedral, attended by the Vice-President of Chile, the President of the Argentine Republic, and the numerous officials attached to them, with the ladies of the party. Such a ceremony is annually performed in Santiago on the 18th of September, but this year it was even more impressive than usual. The splendid cathedral was decorated not only with the customary trappings of the church, but also with a mass of tropical flowers and shrubs; and everywhere the blue and white of the Argentine Republic was artistically displayed.

When the ceremony was concluded the distinguished party returned to the National Palace (*Palacio de la Moneda*) to witness another review of the military forces, but owing to the lateness of the hour and to the extensiveness of the program the formal parade at first announced had to be abandoned.

An event of lighter vein closed the exercises of the afternoon. This was a garden party (the identical words are used in Chile to convey the idea) given by the municipality of Santiago in honor of the President of Argentina and the Vice-President of Chile. The *Cerro Santa Lucía* began to be crowded as early as 4 o'clock. The walks of this popular resort and the numerous buildings throughout the park were gayly decorated, and every available place was occupied by booths and buffets where the visitors could find refreshment. At 6 o'clock the distinguished guests arrived, and the assembled bands greeted them by the national hymns of the two Republics played together. The address of welcome was delivered by the *alcalde* (mayor) of Santiago, Señor ARMANDO VERGARA L., who reviewed in a few words the past of the city, but gave particular emphasis to the pleasure felt by the people in receiving such distinguished guests.

The special delegates were present in a body, and Señor VERGARA spoke to each in turn. Germany, France, Italy, Spain, Japan, the United States of North America, Mexico, Cuba, Ecuador, Brazil, Bolivia, Paraguay, and Uruguay were greeted by name, and to them,



From *La Ilustracion Sud-Americana*.

ARRIVAL OF THE CADETS OF THE ARGENTINE MILITARY COLLEGE AT THE CHILEAN FRONTIER.

The Cadets of the Military College of Chile had been the guests of the Government of Argentina during the centennial celebration of that Republic in May, 1916. Chile in turn entertained the cadets of Argentina during its centennial celebration in Santiago and Valparaiso. The Chilean Cadets went to the frontier between the two Republics to meet their brothers in arms, and cordially received them there, renewing old acquaintance begun so auspiciously earlier in the year.

as well as to all those who by their acceptance of the invitation had honored the city of Santiago, he extended cordial greetings.

The night was given over to festivities of all kinds in the theaters and other resorts of public amusement. A grand function at the opera was prepared for the visitors, and from 9 o'clock, on the streets of the city were bright with fireworks and electric illuminations.

It is a good thing for a nation and a people to have a centenary. The expiration of the hundred years brings before the mind, as is possible in no other way, the perspective of the past, and helps to bring into its proper relation the purposes and the ambitions for the



(From *La Ilustracion Sud-Americana*. Buenos Aires, September 30, 1910.)

THE ALAMEDA DE LAS DELICIAS DURING THE FIESTAS.

One of the finest streets in Santiago is the Alameda, a broad avenue about which much of the life of the capital revolves. During the centennial celebration many parades took place on the Alameda, and this illustration was taken at the moment the official committee was on its way to the "Moneda," the residence of the President of Chile, and the location of some of the government offices.

future. What has been achieved must be the basis for comparison of what is hoped to be achieved for the coming hundred years.

On this anniversary, therefore, Chile has taken opportunity to review her accomplishments since the earliest pronouncement for independence, and the result has been distinctly encouraging. The celebration of "*el día de la Patria*" with such enthusiasm and loyalty by people and Government alike was consequently completely justified. It has intensified the spirit of nationality.

But more than one day was devoted to "*el centenario nacional*." In fact, almost the entire month of September was set apart throughout the entire Republic to the festivities. Nor did Santiago alone

have the exclusive privilege of the celebration. To be sure that city is the capital of the Republic, and for that reason it naturally enjoyed certain preeminence in entertaining foreign delegations and in furnishing the historic background for some of the military functions. But every town and village in Chile had its local *fiestas*. Every spot hallowed in history by some incident connected with the struggle for liberty was carefully marked out, either for the erection of a permanent monument to record the event or by speeches, parades, and decorations, by which the people might learn how history was made and how they themselves were contributing to the making of it. In foreign cities also the Chilean colonies celebrated, and the banquets in Mexico and Paris were enthusiastically attended.

Even in Punta Arenas, the southernmost settlement of Chile and one of the youngest, there was no lack of enthusiasm. This modern and energetic port on Magellan Strait, which one hundred years ago was almost no-man's-land and a fearsome, inhospitable wilderness, is to-day full of life and energy, the headquarters of a rapidly growing pastoral industry, and a very important shipping point. It is loyally Chileno and celebrated the national centenary as if it had always been an integral part of the Republic. Valparaiso, of course, was second only to Santiago, and in one respect took precedence even of the capital. But probably a condensed translation of the program will show how extensive and interesting the festivities were.

OFFICIAL PROGRAMME OF THE CELEBRATION OF THE CENTENARY OF THE DECLARATION
OF INDEPENDENCE.

September 12—8 a. m.: General decoration of the city.

11 a. m.: Arrival of the cadets of the Argentine Military College at Santiago.

2.30 p. m.: Presentation at the National Palace of the Special Foreign Envoys and Ministers.

September 13—9 a. m.: Dedication, in Maipu, of a column commemorative of the 5th of April, 1818.

10 a. m.: Laying of the corner stone of the statue to CAMILO HENRIQUEZ in the Plaza del Brazil.

September 14 (in Valparaiso)—9 a. m.: Naval review in the harbor by the Vice-President of the Republic.

3 p. m.: Naval parade of the Chilean and foreign sailors.

5 p. m. (in Santiago): Reception in the Military School to the Argentine cadets.

September 15—10 a. m.: Laying of the corner stone of the monument to ZENTENO.

11.30 a. m.: Arrival at Santiago of foreign sailors.

9 p. m.: Special performance in the municipal theater in honor of the foreign navies.

September 16—11 a. m.: Arrival in Santiago of the President of the Argentine Republic, and reception by the Vice-President of Chile and other officials appointed for that purpose. President FIGUEROA ALCORTA will be conducted to the special residence prepared for him, by a formal escort of the principal citizens.

8.30 p. m.: Banquet in honor of foreign military and naval guests. Banquet in the National Palace to the President of the Argentine Republic.

September 17—10 a. m.: Reception in the University of Chile.

2 p. m.: Inauguration of the Exposition of Fine Arts.

3 p. m.: Inauguration of the monument erected by the French Colony in front of the Palace of Fine Arts.

4 p. m.: Reception in the Sala de Honor of the National Congress.

8.30 p. m.: Banquet in the National Palace in honor of the foreign guests. The President of the Argentine Republic will attend and the address will be made by the Vice-President of Chile.

September 18—9 a. m.: Historic parade representing the entrance of the patriotic army after the battle of Maipu.

10 a. m.: Laying of the corner stone of the monument to independence, in front of the main entrance to the Cousiño Park. Gathering of school children, by whom



(From *La Ilustración Sud-Americana*. Buenos Aires, September 30, 1910.)

FOREIGN DELEGATES LEAVING THE CATHEDRAL IN SANTIAGO AFTER THE TE DEUM ON INDEPENDENCE DAY, SEPTEMBER 18, 1910.

The ceremony which takes place every year was very solemn and imposing for the hundredth anniversary of the declaration of independence. The foreign delegates attended in a body, marching from the cathedral to the national palace when the exercises were concluded.

will be sung the national anthems of Chile and Argentina, in front of the statues to O'HIGGINS and SAN MARTIN, after which they will march to the residence of the President of the Argentine Republic.

2 p. m.: Te Deum in the cathedral; military formation in the square between the National Palace and the cathedral. The Vice-President of Chile and the President of the Argentine Republic will take part in this Te Deum.

4 p. m.: Garden party given by the municipality of Santiago in the Cerro (hill) Santa Lucia. Here will be given by the orchestras in harmony, at the arrival of the presidential parties, the national airs of Chile and of Argentina, as well as those of other nations who have sent representatives to the Centenary.

In the evening, free and popular performances at the theaters and places of amusement. Fireworks and other entertainments for the people.

September 19: Inauguration of the monument to ERCILLA in the square of the same name.

10.30 a. m.: Visit to the Salvador Hospital of the wife of the Vice-President, accompanied by the distinguished ladies who, with their husbands, are the guests of the nation.

11.30 a. m.: Breakfast at Cousiño Park by the Minister of War of Chile to the Minister of War of the Argentine Republic.

2. p. m.: Grand military parade,

5 p. m.: Tea at the Union Club to the diplomatic officials and guests.

8.30 p. m.: Banquet in the Santiago Club by the Minister of Foreign Affairs of Chile to the Minister of Foreign Affairs of the Argentine Republic.

8.30 p. m.: Banquet tendered to the Vice-President of Chile by the President of the Argentine Republic.

10.30 p. m.: Reception by the President of the Argentine Republic.

September 20—10 a. m.: Inauguration of the monument erected by the Italian colony in the Plaza Colon.

12 noon: Breakfast in the *Club Hipico* to the foreign delegates.

September 21—10 a. m.: Inauguration of a monument erected by the Swiss colony.

2 p. m.: Farewell reception to the President of the Argentine Republic, who leaves Santiago under military honors at 4 p. m.

September 22: Laying of the corner stone of the monument erected by the Ottoman colony in honor of MANUEL RODRIGUEZ in the Plaza de la Estacion Mapocho de Santiago.

8.30 p. m.: Reception in the *Parque Forestal* by the French colony.

September 30—12 noon: Breakfast to the foreign delegates by the National Society of Agriculture.

3 p. m.: Opening of the International Cattle Exposition.

In addition to the formal exercises, receptions, and entertainments here enumerated, there were others of a more public and general character. In the evenings the government buildings were illuminated; there were fireworks, torchlight processions, free concerts and performances in the theaters and music halls; horse races in the Jockey Club course; fencing matches, of which the Latins are very fond, between local organizations and even between the best swordsmen of Chile and Argentina; and social meetings of all kinds.

Many of the special features on the programme deserve detailed notice. The out-of-door celebrations may be divided into two classes, those in which parades were the chief feature, taking place in many cities, but with greatest display in Santiago, where they were chiefly military, and in Valparaiso, where they were naval; and those of which the results will be of permanent, material value to the nation, such as the dedication of monuments, the laying of corner stones for public improvements, and the opening of exhibitions which are international in scope and in one case at least international in design.

On September 14 occurred the really most imposing spectacle of the month—a naval review in the harbor of Valparaiso. By those who saw all the celebrations it was called the most beautiful, but that is largely a matter of opinion. At any rate, it gave opportunity for Valparaiso to participate in the centennial exercises by an



NIGHT SCENES IN SANTIAGO DE CHILE DURING THE CENTENNIAL CELEBRATION

exhibition all her own, and it attracted thither the guests of the nation who might otherwise, perhaps, in the busy routine elsewhere, have failed to come closely into contact with the commercial life of the country. The Vice-President of Chile and the officials of the Government journeyed to the port on a special train the evening before, so that they could be ready for the morning's exercises.

The naval review began about 10, after the official party had been received on board the Chilean cruiser *Zenteno*, which was reserved



(From *La Ilustracion Sud-Americana*, Buenos Aires, September 30, 1910.)

LAYING THE CORNER STONE TO THE INDEPENDENCE MONUMENT.

The 18th of September, 1910, was the one hundredth anniversary of Chile's declaration of independence. To commemorate the event a monument is to be erected in Santiago, and its corner stone was laid on that day. The President of Argentina, the Vice-President of Chile, and other officials assisted in the ceremony, which was witnessed by thousands of people.

for the Vice-President and his immediate attendants, and the corvette *Baquedano*, on which the others were accommodated. As they steamed away from the mole, the presidential flag was raised, the official salute was fired, and all the vessels in the harbor ran up the flags of honor, while the crews stood at attention. These Chilean war ships went first to the end of the waiting line of the men-of-war, and then slowly passed before each one, receiving a thunder of guns and vivas on the way.

First came the ships of the United States of North America, the *California*, *Colorado*, *Washington*, and *Pennsylvania*; then those of the Argentine Republic, the *San Martin* and the *Belgrano*; of Brazil, the *Bahia*, *Tamayo*, and the *Timbira*; of Germany, the *Bremen*; of Italy, the *Etruria*; of Uruguay, the *Montevideo*; of Ecuador, the *Libertador Bolivar*; and at the end an imposing portion of the Chilean navy, the *Prat*, the *O'Higgins*, *Esmeralda*, *Chacabuco*, *Blanco Encalado*, *Linch*, *Condell*, *Rancagua*, *Lautaro*, *Merino Jarpa*, *Hyatt Contreras*, and *Cirujano Videla*.

Shortly after the Vice-President had disembarked, he received informally the Chilean naval officers and the commanders of the foreign war ships in the line. As they all advanced from the mole to the *Intendencia* (government headquarters), the foreign officers were greeted with rounds of applause by the people who had gathered in great crowds to see the review and to demonstrate their appreciation of the presence in the harbor of so many vessels from abroad. The waters of the port had been full of smaller craft and excursion boats from which those who so wished could follow the *Zenteno* on her cruise, and these, too, as occasion offered, added their salutes to the official guns of the sterner men-o'-war.

After the exercise of the morning a luncheon was served to the distinguished guests. In this the principal toasts were spoken by the Minister of Marine, the Admiral of the North American squadron, and the special Ambassador from Italy. But the entertainment in Valparaiso was not yet concluded, for the afternoon had been set aside for a naval parade on land, a pleasant contrast to the more magnificent review of the collected fleets of the morning.

In the shore parade there were present sailors from all the foreign nations represented in the line of the morning, and from practically all the vessels in it. The Americans marched first, the Argentinians next, then the Brazilians, the Germans, Italians, Uruguayans, Ecuadorans, and the Chileans. At the head of each national division went the ship's band, playing, at each new formation, the air of their country and other melodies most significant of their nationality. Here, too, crowds filled the streets, the balconies, even the roofs of the houses and the trees, snatching every chance to show a hearty enthusiasm for their visitors and guests.

One delightful episode must not be forgotten, for it surely will long occupy a warm place in the memory of those whose good fortune it was to partake of it. Reference is made to a luncheon served in the Jockey Club by the newspaper men of Valparaiso to their visiting confrères from Santiago and abroad who had come to the port to witness, as members of their profession, the exercises of the day. Such hospitality among workers in the same field goes far to overcome any unfamiliarity that may have been an awkward barrier to a clear interpretation of a country's genius.

Another event in Valparaiso took place on the same day, and it was a sincere index of the cosmopolitanism of the port, as well as of the good feeling existing between both Chileans and foreigners. The French colony presented to the city a monument dedicated to the triumph of the ideas of liberty and justice in their western home.



THE GRANADEROS OF BUENOS AIRES, ARGENTINA.

This old regiment, formed under General San Martin, over one hundred years ago, is one of the famous military organizations of South America. It preserves to-day the uniform worn when it was fighting for independence in 1810, and has many sacred traditions of action and service. In October, 1909, the Granaderos were sent to Boulogne-sur-Mer, France, to assist in the unveiling of a monument to their hero there (where he died), and they also took part in the recent centennial celebration of the independence of Chile, in Santiago.

The token of their gratitude took the form of a drinking fountain of bronze—a condor in the act of flying from his perch on the mountain peak—located in a well-chosen spot on the Avenida Francia.

In the dedications of monuments Santiago also shared well. On September 13 there was one to HENRIQUEZ, on September 17 one to



Illustración Sud-Americana, Buenos Aires, September 30, 1910.

SAN MARTÍN AND O'HIGGINS AT LA CUMBRE, CROSSING THE ANDES INTO CHILE.

This painting of one of the most famous events in American history, equalling in fact the march of Napoleon crossing the Alps, was presented by the *Comisión del Centenario* of Argentina to the Army of Chile.

ZENTENO, and on September 19 one to ERCILLA—three men memorable in the history of Chile.

HENRIQUEZ (many Spanish authorities spell the name without the H) was a native of Chile, born in Valdivia in 1769. He was one of the first to preach the patriotism of independence by his oratory and by his pen, but his name deserves particular honor as that of the founder of the first periodical in Chile. *La Aurora* was the name of this earliest newspaper which had its premier edition on February 13, 1812. HENRIQUEZ was also one of the original editors of *El Mercurio*, in association with ZENTENO.

ZENTENO was born in Santiago in 1785. He was a patriot, a general, and a statesman, always active in behalf of Chile and political freedom. In his youth he made the acquaintance of SAN MARTIN in Argentina, and of O'HIGGINS in his own country, and labored with them during the struggles for independence. He was the founder and the first editor of *El Mercurio* (in Valparaíso), a newspaper in all senses of the word, which has maintained itself through the storm and stress of over ninety years.

ERCILLA was a Spaniard, born in Madrid in 1533. He was an aristocrat, fired with the spirit of adventure that was the result of the discoveries of COLUMBUS, CORTÉS, and PIZARRO. He came to South America in 1556 and spent many months of his best manhood fighting and exploring in Chile. In 1569 (and later in 1578) he published a poem, *Araucana*, descriptive of the country and the people, which has become one of the treasured epics of Spanish literature, but which is also noted for its great historical accuracy, and is to-day quoted as a record of primitive times.

Besides these, other monuments, or corner stones to future monuments, were presented to Chile and to Santiago by the colonies resident in the Republic from France, Spain, Italy, Switzerland, and Turkey, different circles of foreigners showing their appreciation of the celebration by ways of similar value.

Two factors remain yet to be mentioned, and these gave to the nation a permanent record of their condition at the beginning of the new century. These were the Exposition of Fine Arts in Santiago and the Industrial Exposition in Valparaíso.

The Exposition of Fine Arts was according to the programme dedicated on September 17, and the exercises were attended by the President of the Argentine Republic, the speech of welcome being made by Don PAULINO ALFONSO. It is by name and purpose an international exhibit, and there has been erected for it a spacious building in front of the Forest Park (*Parque Forestal*). Art lovers as all Latins are, the Chilenos will thoroughly understand the movements in art, both of the past and present, illustrated in the exhibition, and

undoubtedly after its close many treasures will be preserved permanently in the city.

What is perhaps in this active age, when a productive industry is one of the deciding marks of progress, a great sign of the times in Chile is the Industrial Exposition opened in Valparaiso on September 20. This is the first of its kind in that city—practically in all the Republic. In the address of welcome Señor ALBERTO LEON SILVA, the vice-president of the committee in charge, said that the date would be an honored one; it indicated the accomplishments of peace, of commerce, and of industry; it must be an object lesson of Chile's progress; a promise of larger progress for the future.

Naturally the principal exhibits were from the workshops in Chile itself, and it is gratifying to note that industrially there can be made on native soil so many articles necessary for the complicated life of modern civilization. On the other hand, the foreign exhibits were numerous and valuable, and illustrated how active are the efforts of both European and American manufacturers to reach the markets growing every year in their demands upon their factories.

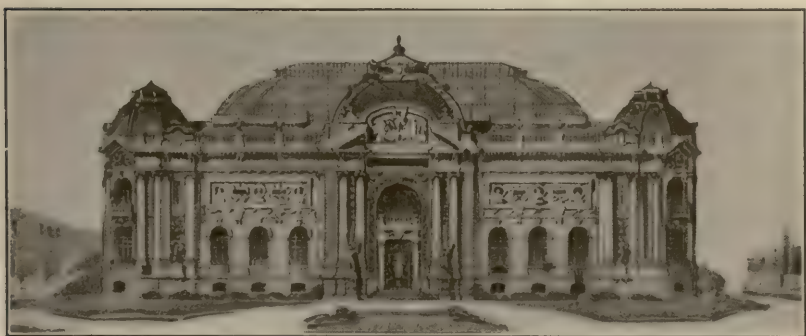
Although the festivities of the centenary lasted almost to the end of September, the remaining days were given over to functions of a general nature. The great day had come and gone, leaving a pleasant remembrance of the step into full national maturity. Several incidents must still be recorded.

At one time it had seemed that Chile, overwhelmed at the loss of one president (President MONTT died abroad on August 16) and of the acting president shortly after, would be compelled to forego the celebration. But a centenary can not be postponed, nor does it return within the life of a generation. The solemn voice of the people decided therefore, especially in consideration of the fact that foreign guests had been invited and that not a few of them were already within the country, that with due respect to the dead the celebration might still go on. It was a wise decision, and the nation dignified itself the more by carrying it out.

If one result above another might be emphasized, it would be the unrestrained cordiality on the part of the people toward visitors from other nations. All received an open-hearted hospitality, and all were fêted with a true spirit of brotherhood. The President of Argentina arrived in Santiago on September 16. He was met at the frontier by a guard and escort of honor; he was lodged in a palace; he was cheered at every step, and when he left on the 20th of the month he seemed to pass only from one home to another. The military cadets of Argentina were likewise entertained. They were adopted by the cadets of the military school of Chile, and in all public functions the two corps were side by side.

A new stimulus to an old friendliness is the recently completed tunnel through the Andes, which makes the trip from capital to capital a continuous one of but little more than a day. If the weather had been inclement, as it often is during the month of September, it might have been impossible for President ALCORTA to attend, and the cadets of the Argentine Military School might have been compelled to make the tedious voyage from Buenos Aires through the Strait of Magellan to Valparaiso. In itself this was part of the centenary. Both Governments had given material encouragement to the engineers to finish their task so that trains could run regularly between the two oceans and the two capitals during independence year, and rejoicing was great in both Republics at the desired accomplishment. It will surely be a substantial link to bind together these two progressive Republics of South America.

So passed the month of September in the centennial year of the independence of Chile. A few items in the program were shifted. In this condensed narrative a few omissions have occurred. The true sequence of the events must be more carefully written. But the impression on the observer will remain forever sharp and clear. Chile is a nation; the people are loyal, patriotic, ambitious, and eager for the approving friendship of the world.





A BUSINESS STREET IN SAN JOSE

All capitals in Central America, and many of her cities in the populous districts, have one or more streets of this character, with substantial buildings, often of two stories. The ground floor contains a general store, and in the rear there may be a warehouse well supplied with goods for every grade of customer.

TRAVELING NOTES IN CENTRAL AMERICA: II

GUATEMALA CITY, October 1, 1910.

To the Editor:

DEAR SIR: The MONTHLY BULLETIN for September lies before me, and I feel highly flattered to see, on page 434, the heading of my first article—the title is repeated above—on my experiences in Central America. I am thereby encouraged to continue these notes, begging that you use your editorial blue pencil if anything I may say appears unsuitable to the character of your magazine. For good measure, let me add that this September number has lots of readable matter in it, and I shall pass it on among my friends to help the cause along.

I left myself in San Jose de Costa Rica, having spent three weeks on the way there, through Colon and Panama. A commercial traveler must devote at least one week to San Jose. It may not take that long, but it would be unwise to estimate less than that. Moreover, there are several towns within easy reach of the capital, some of which should be visited personally, the selection depending upon the line of goods a man carries. Cartago, Heredia, and Alajuela are the larger places, all on the railway. Cartago is the aristocratic neighbor, Heredia the cattle market of the metropolis. The people buy a great variety of stuff, and they want serviceable articles. For instance, stationery, men's furnishings, dress material, shoes, house supplies, hardware; these are all staples. Groceries, canned foods, clothing, just such stocks as the prosperous but conservative farming community in Indiana might require, can be marketed in Costa Rica, if a man goes after it in the right way.

But four weeks are already spent, and I have not really entered, as yet, the experiences that distinguish travel in Central America from that in more accessible parts of the world. This begins when one goes down from San Jose to the west coast and continues the trip along the Pacific.

Now, here is where I can give advice which will allow my traveling friend, who attempts it for the first time, to escape inconveniences and annoyances that cost me many an unpleasant lesson before I learned how. I refer to the kind of clothing and traveling equipment with which to provide himself.

The first regard should be for the clothing. As far as undergarments are concerned, one may wear anything that is comfortable, from the very lightest and thinnest gauze or cotton to light-weight soft and ventilated wool. I myself prefer cotton. The ultra-scientific advice about absorption by animal over vegetable fiber, etc., is inconclusive, in the American Tropics, at least. I have sweated in misery clothed in Jaegers, and have never caught a cold, though wearing only the flimsiest of summer shirts. I have, however, always protected myself, if the nights are cool (as in the mountains), or in those muggy, sticky, but nevertheless chilly, nights that sometimes follow rainy days on the coast, by a snug flannel abdominal band put on or taken off, as the weather may require. A light negligee shirt with attached collar and cuffs, unstarched, is the best for steamer, train, or saddle. Be comfortable is the healthiest rule.

For outer garments, linen or cotton ducks, trousers and coat, are fashionable in coast towns, but they are easily soiled, and, as the traveler must have at least six suits in order to appear neat and fresh at all times, I do not consider them practical. They take up too much room and cost too much in washing bills. Simple blue serge, or any

such light clothing, is the best for continuous wear. Some persons advise *khaki a la militaire*, but I do not like it, myself. It never looks quite clean and always is conspicuous. Even in riding across the mountains, it seems to me unsuitable for the commercial traveler, as savoring of the official.

For clothing off the railway, that is, in the saddle, I still prefer a simple woolen suit, made and used only for that purpose and changed as soon as a business place is reached. Right here is where experience counts for something. No man should attempt, as I unfortunately have done in my earlier trips, to go into the interior of the country without a proper and complete saddle outfit. This must include the traveling suit mentioned, broad-brimmed soft hat, heavy socks, and thick, high-laced riding boots, with close-fitting puttees. These last are essential.

Do you know what *garapatas* are, not to mention mosquitoes, sand flies, and such infernal pests of the Tropics? *Garapatas* are little jiggers or ticks, of insignificant size but unconquerable penetration; they have a malignant affinity for one's ankles; they flourish all over the Tropics, and once having tasted human flesh, they will die, happy in the misery they have caused. I have known one poor fellow in bed a week with swollen ankles; I myself have had my *mozos* (native men servants) scratch my legs for twenty minutes at a time—they are experts, too—trying to relieve me of the wicked creatures, and yet my ankles would be raw for weeks thereafter. All this, because I did not provide myself on a mountain trip with high-laced shoes and puttees.

Then the complete outfit should include one's personal saddle, spurs, and a flexible waterproof bag, which can be rolled tightly and strapped behind the saddle, but which is very useful for holding the necessary change of clothes, toilet, and other articles that can not be carried in the pocket. These impedimenta may seem cumbersome, and at the beginning they cost extra money, but in the long run they are an economy, and with the comfort they bring are well worth the slight trouble they cause. I nearly forgot one important item—a rubber coat. This should be long and thin. I do not mean a mackintosh or a cravenette. Simply a rubber coat, black and cheap. There are only two garments capable of keeping off a tropic rain—a slicker, and a black rubber coat; the slicker is too heavy and unwieldy; the simple black rubber coat will serve all purposes of protection against wind, rain, or dust, it can be used in the evening for warmth or as a cover for evening dress, it costs little and can be thrown away for a new one without regret.

So much for the preparation to meet travel of all sorts. Of course, if one does not plan to leave the easy path of the railway, much of the baggage above will be unnecessary, but I am talking to the commercial traveler who wants to sell his goods, and he must be ready to go after the market. Many parts of Central America are to-day as easy of access as southern Indiana, and every year sees some advance into new fields, but it will be a long time yet before the whole field can be covered without the use of the saddle and the faithful mule.

But here I have been taking all my space and time giving advice! It's sensible, however, just before leaving San Jose, in Costa Rica.

A pleasant little railway runs west from San Jose toward the Pacific. It has been a long time building, and is not even yet opened the entire distance to the coast, although only a few miles are incomplected. When I was last over it, the gap between the construction camps was about 16 miles (24 kilometers). On the western slope of the mountains of Costa Rica the climate is more agreeable, the air drier and more stimulating, and the sun seems brighter. There is less rain during the year, and in the dry season there is really no rain at all, so that if one travels after the middle of December, say, and before the end of March, the luxury of highland weather is felt in all perfection.

The train leaves the city a few moments after 8 in the morning—rather late for a tropic schedule—but there is no need of hurry to escape the glare and heat of midday. The climate is perfect, and the clear, mellow air makes me wish that the day would



FALLS OF OROSI, COSTA RICA.

From the car window many such vistas can be seen, as Costa Rica is one of the best watered Republics of Latin America. The material value of these falls can as yet hardly be estimated, but undoubtedly, when they are utilized as a source of power, as several of them are even now, Costa Rica will have at command an immense industrial asset.

never end. This is often one of the great rewards for absence from home and the so-called comforts of modern life, the absolute perfection of air, sun, sky, and scenery, in the Tropics. Indolence is not the word to describe the feeling; I do not get lazy, for the instant a demand comes for action I am ready for it. But the delicious feeling creeps into my bones that time has stopped, and that physical contentment is the nirvana of eternity. I know of few places in the United States where the climate is so overwhelming as it is in many places in the midmountain Tropics of Central America and Mexico. Perhaps in Tennessee or the higher levels of Arkansas, for the short weeks of spring, I have experienced this intoxication of climate, but California, Florida, or Illinois don't know the force of the word! There the result is due to a change of season, and one feels that one must grasp it before it escapes; in Central America, even in the rainy season, the hours of sunshine seem to be perpetual. Just to live is sufficient reason for living.

Does it sound ridiculous for a traveling salesman to give way like this to an acknowledgment of a stratum of primitive poetry in his make-up? Sometimes I am myself ashamed of it, but then, again, when I meet my shrewd clear-headed Latin friends and see how gladly they appreciate the poetic phases of their routine, or when I chance upon hard-headed Yankees or Englishmen who have yielded to these local influences and even go me one better by reading poetry, I realize that we all have the spark of it in us, no matter how dulled it may have become in the anxieties of life between New York and Chicago. In fact, those of us who are successful in Latin America must be partly poets. We must be bitten by the bug of the Tropics. The man who doesn't dare confess the enjoyment in this side of himself had better keep away from the whole region. He has no business there, and that's all there is to it.

But the train has finally arrived at Orotina, a little station at the end of the railway, when I was last over the line, although I hear that it has now advanced beyond that point, bringing the track from San Jose closer yet to the station of Esparta, which is connected by rail with the port of Puntarenas, on the Pacific Ocean. Before reaching Orotina we passed the stations for several prosperous mining camps. They maintain their own commissaries, but there are general stores in the neighborhood, and these must sell to the employees, both native and foreign, and to the farming folk in the district. Besides, the mines themselves need machinery, tools, and other equipment, and they are erecting electric power stations in the near-by streams. It is worth a visit to them, to see the first-class improvements going on in out-of-the-way places in Central America, and a man with merchandise of a proper kind might sell his expenses and establish a future trade. I do not stop there, however, as I want to get on to the coast.

At Orotina I had ample time for the breakfast (*almuerzo*) before starting on the ride across the mountains to Esparta. The best plan, as I have found out, is to telegraph ahead to the livery stable (*establo*), and the same may be said of any similar trip to be made, to have horses and a cart ready for the arrival of the train. The cart is necessary because for this short journey it is better than mules for carrying baggage. Further on, in Honduras and Salvador, the faithful mule does the work, as I shall tell when I get there.

This is a good place to explain the most serviceable way to arrange the baggage for convenient and economical travel. It cost me lots of trouble to learn the lesson, and I hope others may profit by my experiences. Nowadays I always go with two, four, or six (an even number) of light, strong, and water-tight trunks, well locked and strapped—a canvas cover might be of advantage, though I never tried it—each trunk weighing no more than 100 pounds, packed. All trunks must weigh the same. The reason is this: A mule is loaded by slinging his load across a pack saddle and strapping it with numerous ropes passed snugly under the belly of the animal. The *mozos* (servants) are very clever in adjusting the cargoes with the ropes, but are often obliged to ask help if the boxes are too heavy. I call 250 pounds a full load (125 pounds

on a side), but I have thought that 300 pounds on a poor little mule, climbing patiently rocky and stiff mountain trails, was too much. Better less baggage or more mules, is the civilized way of looking at the question. Before hiring the animals it is necessary to examine the back of each; stable keepers in Latin America are as tricky as their kind in other parts of the world, and will muster into service any old sore-backed beast if you don't keep an eye on them.

From Orotina to Esparta is about 16 miles, over a decent road that offers as fine scenery for the horseman as can be desired. The first place lies at an altitude of 1,200 feet (365 meters), the last at about 1,000 feet (305 meters), and on the way down a glimpse here and there at the Pacific Ocean is discovered. Roads in Costa Rica are decent, in the dry season, but like war according to General Sherman, during the rainy months. They have one superiority over those of other countries, however, in that they are marked, regularly and methodically, by practical kilometer sign posts, and it is a mighty consoling pastime, I can assure you, to note the distance and be able to trust the record, every five-eighths of a mile.



HOTEL DE CORINTO, NICARAGUA.

The building is close to the water of the bay, the entrance to the steamer pier, and is across the street from the custom-house. The lounging room inside the main entrance is practically the "club" of the port.

For short distances, where the roads are passable, a cart is cheaper than mules. If there is plenty of time between towns, so that the cart can finally catch up with the mules, it is also pleasanter to go on ahead and to enjoy the travel with no worry about baggage. For the 24 kilometers, it is a safe reckoning that on a hired livery horse one can go about 8 kilometers an hour; a cart, drawn by oxen who can not by even inhuman prodding be made to move beyond their normal pace, 3 kilometers an hour is the utmost speed. I have made the distance in three hours, but my ox cart, which left Orotina at 3 o'clock in the afternoon did not arrive at Esparta until 3 in the morning. For ladies and invalids, carriages can be hired, or panier saddles. But I forget; I am acting as guide for the commercial traveler, not for the tourist.

Esparta is a new old town, revived by the temporary advantage of being the present terminus of the railway from Puntarenas. It has about 3,000 inhabitants with the usual number of hotels and general stores. The climate there is tropical, but the nights are cool. Some business might be done in the place, although only the commoner grades of goods could be sold. I never made a try at it, as I always managed to catch

the early morning train down. Esparta is interesting, anyhow, because here the traveler meets for the first time, in adventuring on the Pacific coast, the genuine Latin American country hotel. He gets a bed, that's all. Here, too, he catches his first glimpse of the hammock which is so general in Central America. If other travelers arrive, no matter what the hour, day or night, they take the next beds in the same room, till three or four are occupied. It is all goodfellowship, however, and often leads to an acquaintance that may prove valuable in the future. The Latin loves wayside associations, he is always ready to talk and usually begins conversation, partly as a matter of politeness if he sees that the stranger is a foreigner and is seeking information, partly from curiosity, as he is eager to exchange views on general matters and may wish to learn what opinion of local conditions has been created in the mind of his neighbor.

The next lesson is to manage the trick of getting up early, washing in the dark, and taking a hurried cup of coffee by candlelight, so as to catch the train leaving about sunrise, as it does from Esparta to Puntarenas, a distance of only an hour



THE RAILWAY STATION, GRANADA, NICARAGUA.

Granada is at present the end of the line that begins at Corinto. Steamers cross the lake from here. The city is commercially of great importance.

and a quarter away. I myself like these trains that leave in the first dawn of the morning; the air is so cool and fresh, the passengers so bustling in their quiet way that the newness of it never wears off. It is necessary, however, for the traveler to give sharp attention to his baggage and to assure himself by personal inspection that everything is on board, or there is a chance that some article may be left behind.

The checking system is quite well developed and understood in Central America, and if substantial brass checks are not used, at least good paper receipts are issued by the station agent, which are perfectly valid claims for each and every piece intrusted to the railway. Nevertheless, the agent must not and can not be hurried; he must have time to weigh the baggage collectively so as to see that nothing above the proper amount allotted to the ticket is carried free; and then he must enter in his book an account of the procedure, in accordance with the regulations. As a rule, it is better to have baggage attended to the afternoon before the morning on which an early train leaves. I have fallen into the habit of carrying all personal baggage with me. Porters are cheap and obliging; no one objects to satchels, baskets, boxes,

or even bird cages in the car. On arriving at one's destination the sides of the train swarm with boys, big and little, eager to transport anything and everything in any direction; bags, etc., are passed through the window to the fortunate boy outside—be careful to strike a bargain with him and learn his name beforehand—and it then is an easy matter to go to the hotel by carriage or on foot, waiting till later in the day to get the heavier trunks. The agent can be no more hurried in delivering than he can in receiving the goods.

Puntarenas (spelled as one word to distinguish it from the Punta Arenas in Chile) lies at the extremity of a sandy point jutting into the Pacific Ocean. It is a healthy town of about 5,000 inhabitants, with a good general business throughout the contiguous interior as well as along the coast. All kinds of merchandise can be sold here if the American goes after it properly, but at present much of what is sold here comes from English and German manufacturers, while several shops are managed by Chinese. This is a fashionable seaside resort for many Costa Ricans, and the municipality maintains a pretty little bathing establishment at the end of one of the two piers. The charges are moderate and the service excellent. From this port a small steamer makes the coastwise places in the Gulf of Nicoya. One of the principal cities of the Republic is Liberia, situated at the north near the frontier of Nicaragua. It is in a cattle country, but on the edge of the gold fields.

I have often heard the question debated among the people of Puntarenas, whether the place will lose its importance or gain when the railway to San José is completed. Will merchants go up to the capital to buy their stock, or will salesmen save them that trouble, as much as they can, and deliver goods quicker and cheaper from the east? At present the route selected from the United States (California excepted) is from New Orleans across Panama and up the coast. My opinion is that very much will depend upon the activity of the salesmen, and if they study the market they need not lose it.

To enter Nicaragua from Costa Rica the only practical route is by steamer from Puntarenas. The traveler needs advice here. In the first place the steamship company requires payment for the passage ticket in United States gold, and if this has not been secured in San Jose, the charge for exchange by local merchants, as there is no bank in Puntarenas, will be considerably above normal. In the second place, it is customary and sometimes obligatory for the passenger to obtain from the authorities of the Government a passport to leave the country; in some instances the steamship agent will not issue a ticket until the passport is shown. This costs nothing, but if the day of sailing happens to be a holiday so that it will not be issued then, or if the traveler is so unfortunate as to have forgotten this ceremony till the last moment, he can not go on board, and he must cool his heels for a week or so longer waiting for the next steamer. In the third place, he must arrange with *cargadores* (porters) to carry his baggage to the pier, and with boatmen to lighter it from the pier to the steamer lying out in the harbor. The steamship company's ticket includes only passage on the vessel, but the traveler must meet the expense of arriving and landing. I always bargain several hours in advance of the sailing time, for then it is easy to make favorable terms. I want to add this, too, that once made by a boatman the terms will be honestly kept. I never yet was cheated or held up after the price had been settled.

From Puntarenas one can land at San Juan del Sur, in Nicaragua, or go on to Corinto. The cable station is at San Juan del Sur, and Rivas, an aristocratic old place up the hillside near the shores of Lake Nicaragua, only 18 miles inland. If one goes this way, there is the advantage of somewhat cheaper cost of transportation, and the fact that, working along through the chief towns of the Republic the ground is gone over only once, the exit being at Corinto, where another steamer is taken for the north.

Nevertheless, it is an unpleasant landing place, is San Juan; the anchorage is insecure on account of the shore wind; there is no wharf, and the town itself is a good place to get away from as quickly as possible. Moreover, the climb up to Rivas is unpleasant and solitary. My advice is to stick to the steamer as far as Corinto.

The first-class ticket on the Pacific coast may be reckoned at \$10 gold for each twenty-four hours or fraction thereof. On my last trip I left Puntarenas in the afternoon of one day, arrived at San Juan del Sur the next morning, where we remained until the afternoon, and entered the harbor of Corinto, Nicaragua, about sunrise of the following morning, landing shortly after breakfast. For the passage I paid \$20.

In Corinto the problem of getting on shore presents itself. There is a good pier of solid construction, but only one steamer at a time can come alongside. Once, I remember, my steamer had to wait at anchor, with no assurance when it could go to the dock. I hired a small boat to take me and my baggage ashore, and thus gained several hours, but I was obliged to pay the regulation landing fee (about \$1) just the same as if I had touched the wharf. These details must be borne in mind and a liberal supply of American small change provided for such emergencies, or else annoying delays may result. Fortunately American money is usually accepted, at a discount, of course, but its cash value is undisputed. Custom-houses and railways demand payment in the money of the country, but this can always be purchased with American money from



THE TOWER OF LA MERCED, GRANADA, NICARAGUA.

Everywhere in Central America, even in the most unexpected places, the traveler discovers the picturesque and even the beautiful. This finely proportioned tower, recently constructed, would be worthy a classical setting in Italy.

local merchants if there is not opportunity to go beforehand to a bank. I always carry a supply of paper currency (American) to meet such emergencies.

Corinto is a town of about 3,000 inhabitants, rather pleasantly situated for tropical scenery, and the headquarters of the large importers. The hotel accommodations are altogether inadequate. The traveling man must take what he can get, but I advise the tourist to hurry away from here as soon as possible. The one train through to Managua leaves at 5 o'clock in the morning. There is another, in the early afternoon, but this goes only to Leon, about three hours away, where the night must be spent, but the hotels in Leon are decidedly more attractive. Railway fare in Nicaragua is cheap, as the entire journey from Corinto to Granada—120 miles—costs only 13.40 pesos (first class), equal to about \$1.75 gold.

The chief cities to visit in Nicaragua are Leon, Granada, and the capital Managua, in all of which there are excellent business opportunities. In the north, two days horse-back ride or more from Leon is a substantial American coffee colony, where good stores are supplying the surrounding population. Salesmen from the United States almost

never visit these places, yet English and Germans make regular trips both to the towns and to the interior. They meet success, or they would not work the territory. If Americans made a sincere effort to supply the demand existing in the Republic, even to-day, there is no reason why they can not be as successful as the Europeans.

I have made no mention of the east coast of Central America, because, as a matter of fact, that is a separate region that must be worked by itself. This applies particularly at this time to Nicaragua. Part of the reason why this beautiful country—and it is one of the most beautiful and naturally productive lands in Latin America—has been hitherto so carelessly treated by the American commercial agent is its practical inaccessibility from the Mississippi Valley and the east of the United States. Nicaragua is still altogether dependent upon the Pacific Ocean for its foreign connections, as the only dependable routes are through San Francisco or Panama. Even Salvador, as I shall show later, is far ahead of Nicaragua in that respect. All the settlement of the country, with the exception of Bluefields, lies on the western slope of the mountains. There is no commercial path between the east and west coasts. Therefore, to visit



THE OX CART IN CENTRAL AMERICA.

In traveling over the interior roads of Central America it is often necessary to pack baggage in carts, drawn by faithful, plodding oxen. They and their drivers can always be trusted, but they can not be hurried. The character of the wheels differs according to the Republic.

Bluefields and the contiguous territory it is far better to start from New Orleans on an independent trip than to try to cross country from Managua.

The railroad question in Central America is, therefore, the most vital one in the development of that portion of the continent. For Nicaragua it is absolutely essential that a line to the Atlantic seaboard be constructed as soon as possible. A satisfactory survey has been made, the distance being only 118 miles, with almost no grading. The cost would be small, compared with many roads in the Tropics, and the profits, admitting good financial management, ought to be splendid, for it would save hundreds of miles and many days of circuitous shipment and bring Managua as close to New York or New Orleans as San Jose de Costa Rica is now.

The old water route along the San Juan River need not be seriously considered. Once upon a time it was a highway, feeding the west coast while the canal project interested the world, but it is impracticable now. San Juan del Norte, or Greytown, is no longer an available harbor, nor are there steamer connections north and south along the coast. The necessarily irregular traffic on a tortuous, uncertain river can

never meet the requirements of modern commerce. The only thoroughfare, therefore, can be the projected railway beginning on the Gulf near Bluefields, which should terminate at some point on the railway already in operation on the west coast. The first train to deliver freight into Managua over such a line will advance civilization a generation.

The Pan American Railway must also be considered, but this transrepublic line would not be part of it. Nicaragua has now only the little railway far within the country. On the north, 40 miles must be added before the frontier of Honduras is reached, and even then for all practical purposes nothing much is accomplished, although ultimately its effectiveness will be very great. Toward the south, however, that is, into Costa Rica, the Pan American extension will work wonders. From Granada only about 70 miles are needed to the frontier. From that point there seems to be confusion as to the direction it should take to cross Costa Rica on its way to Panama. To my mind there is no doubt whatever. Properly selected, it can be made a successful trade route, opening a new region already partially brought under cultivation. It might touch Liberia or go more to the eastward, but at all events meeting the rails of the established line at Alajuela. From Alajuela to San Jose, thence to Limon, thence—partly built now—to Bocas del Toro, thence across the divide to David and on to Panama. It is fascinating prophecy, and I, who know the way from experience, am enthusiastically eager for its completion, for the day that Managua is connected by rail with San Jose will see a million acres open to mankind and the trade he carries with him.

In ordinary times I would spend four to six weeks in Nicaragua. Let me say four. It was five weeks from New Orleans to the steamer in Puntarenas; nine out of the estimated twelve, and I am only on my way to Salvador. If you let me continue another rambling letter of this kind, I shall hope to do the three remaining Republics, and in my concluding letter I want to give some final hints about the commercial methods which must be followed in order to make the effort pay.

VIAJERO.



LATIN AMERICA AT THE INTERNATIONAL EXPOSITION AT BRUSSELS^a ..

IN a comparatively short time the world has come to realize the importance of the Latin American Republics and to recognize their power and commercial advantages. No greater proof of this could be given than the interest aroused by the exhibits of these countries at the International Exposition held during the past summer at Brussels.



PRINCIPAL ENTRANCE TO EXPOSITION AT THE END OF AVENUE DE LA NATION, BRUSSELS.

In the handsome exposition grounds which covered 250 acres, were stately buildings representative of Brazil, Chile, Peru, Uruguay, Nicaragua, Guatemala, Haiti, and the Dominican Republic.

The most imposing of these was that of Brazil. This artistic and beautiful building was officially inaugurated on the evening of June 24 in the presence of Marshal HERMES DA FONSECA, President-elect of Brazil.

Covering an area of 4,921 feet and built in LOUIS XVI style, it was one of the handsomest of the exposition, and the architect, F. VON OPHEM, in collaboration with the French artist, FRANCOIS COGNÉ, was most successful in producing a work which called forth

^a By Edine Francis Tisdell. Photographs by the author.

great admiration and praise. Surmounted by a handsome dome, flanked by four sculptured groups representing commerce, agriculture, mechanism, and industry, this building contained one of the most complete, interesting, and instructive exhibits of the exposition.



BRAZILIAN EXHIBIT BUILDING.

Covering an area of 4,921 feet and built in Louis XVI style, it was one of the handsomest of the exposition:

An endless procession passed up and down the two handsome, curved stairways leading to the main entrance, where palms and tropical plants softened the dazzling whiteness of the walls. Through the green glass of the dome a soft light was diffused, and the tinkle

of water fell agreeably upon the ear—the play of a fountain splashing into a basin of variegated pink and black marble—making perfect harmony.

The 20 Brazilian States sent all that was best to enlighten the mind and rejoice the eye. In the large main hall, between graceful pillars, stood handsome showcases containing splendid specimens of precious and semiprecious stones, marbles, and onyx. Here also the wealth of the forests and the ingenuity of the workman were artistically combined in the magnificent display of highly polished and exquisitely inlaid woods. At the back of the hall was an artificial jungle where was represented the bird life of this country.



A PANORAMA OF THE CITY OF RIO DE JANEIRO WAS VERY INTERESTING.

In two great rooms to the right and left were displayed the products and industries, forming an unusually handsome collection, while the walls of deep yellow formed an effective background for the rich skins of the leopard, jaguar, and other animals of the forests.

In the afternoon an aroma of coffee pervaded the place, for then one could enjoy a cup of this delicious beverage. Of the 17,000,000

bags of coffee exported annually from coffee-growing countries, Brazil furnishes 13,000,000. A realistic reproduction of a coffee estate in Sao Paulo was most interesting and instructive. This work by Monsieur CALOMET D'AGE, artist for the Ministère des Colonies Francaises, and arranged under the direction of Monsieur HANDROT, of Paris, represented a vast coffee field at sunrise, *real* trees forming the foreground. Farther on, under the brilliant light of noonday, the coffee pickers were seen at work. There was also represented a camp in the midst of a rubber plantation, practically illustrating the process of collecting the sap from the trees. Of 130,000,000 pounds of rubber exported from various countries, Brazil produces 84,000,000.

Before leaving the building, we obtained a clearer knowledge of the natural beauties of this country by the aid of a cinematograph.



THE BUILDING OF CHILE WAS IN POMPEIAN STYLE AND WAS MOST ATTRACTIVE AND ARTISTIC IN EVERY DETAIL.

Apanorama of the city of Rio de Janeiro was very interesting. This splendid work of Monsieur LOUIS DEMOULINS, artist for the Ministère de la Marine, was most realistic, giving a view of the city and bay from the Santa Therese hill.

The Brazil building at night was one of the most brilliantly and artistically illuminated of the exposition.

CHILE.

The building of Chile was in Pompeian style and was most attractive and artistic in every detail. Devoted entirely to showing the wonderful results obtained in 1909 by the use of nitrate of soda as a fertilizer, this exhibit was of peculiar interest to agriculturists.

The walls of the dainty patio were hung with a fine collection of photographs which showed more conclusively than words the great advantage of employing this magic enricher of the soil. The pictures were comparative, showing vegetables, fruits, and flowers grown with and without the help of nitrate in France, Germany, England, and many other countries.

Three rooms contained splendid specimens of the wonderful harvests obtained by the judicious use of this fertilizer.

Attention was drawn to one enormous, solid block of nitrate weighing 6,400 pounds, which came from the estate of "Santa Elena," Iquique.

Found principally in the Provinces of Tarapaca and Antofagasta, the extracting and refining of the salt affords employment to a large part of the inhabitants of the Provinces. It is taken to Iquique, Pisagua, Antofagasta, and Taltal, where it is shipped to all parts of the world.

THE DOMINICAN REPUBLIC.

In the main building, not far from Guatemala and between the exhibits of Greece and Luxembourg, a large space was given to the products of the Dominican Republic. Handsome show cases contained coffee and cocoa, cigars, tobacco, and wool, while a variety of woods highly polished showed the wealth of the forests. A life size statue of COLUMBUS adorned this section.

GUATEMALA.

Guatemala had a small but most interesting exhibit which was in the great main building opposite that of the United States.

Coffee and cocoa beans, sugar, corn, and a great variety of beautiful woods were most conspicuous. An immense log of cedar from Peten occupied the center of the reserved space. This gigantic tree, one side of which had been highly polished, weighed 6,320 pounds.

Very interesting was a collection of the many tropical fruits faithfully reproduced in wax. The walls were gayly hung with beautiful embroidered "guipeles," or Indian shirts, brilliantly colored silks and cloths, matting, and basket work. At one side was a handsome photograph of President ESTRADA CABRERA.

Placed to attract attention was an interesting and instructive description of the country, with maps, showing the unusual advantages offered to immigrants to whom the Government gives 100 acres of land and free transportation from the coast to any given spot.

HAITI.

The pavilion of Haiti was extremely picturesque. The building and a few of the contents were given by the Government, but for the

greater part the exhibits were those belonging to commercial houses. Liquors and rum, coffee and cocoa, were the chief articles displayed.

As in the building of Brazil, delicious coffee was served during the day.

There were beautiful specimens of the exquisite needlework and laces from the convents and schools. A handsome stained-glass window, designed by PAUL HAZEMANS, was intended for the cathedral at Port-au-Prince.



THE PAVILION OF HAITI WAS EXTREMELY PICTURESQUE.

NICARAGUA.

In a dainty little white cottage covered with a latticework of pale blue—the national colors—Nicaragua had a small but excellent exhibit. The natural products of the country exhibited were coffee, sugar cane, and cocoa beans. Handsome show cases contained an attractive collection of beautifully carved “guacales,” or native drinking cups, made from the cocoanut, delicate feather work and

stuffed birds of gorgeous plumage, snake skins, and curious basket work.

In Nicaragua is the great Menier chocolate plantation, of which there was a handsome photograph. This estate covers an area of 187,500 acres, and its goods are known throughout the world. There were specimens of its chocolate and cocoa.



IN A DAINTY WHITE COTTAGE COVERED WITH LATTICE WORK OF PALE BLUE, NICARAGUA HAD A SMALL BUT EXCELLENT EXHIBIT.

PERU.

The exhibit of Peru was housed in a curious little "maison démontable," or folding cottage. Many of these houses are used on the plantations, and with their porches and wide, overhanging roofs are not only picturesque but snug and practical.

There was the usual display of the products of the country, and added to this was a handsome collection of magnificent jaguar and puma skins.

On the wall hung a plaque of President LEGUIA, surmounted by the coat of arms and the flags of Peru.

URUGUAY.

Located on the handsome terrace overlooking the beautiful French gardens, the pavilion of Uruguay was one of the successes of the exposition. Attracted by its charming exterior we entered to find a display of great variety and richness.

Uruguay sent not only the products of her soil and industries as examples of her progress, but an excellent collection of paintings,



THE EXHIBIT OF PERU WAS HOUSED IN A "MAISON DÉMONTABLE," OR FOLDING COTTAGE.

which demonstrated the advancement of art. Unforeseen circumstances prevented this country from exhibiting in the Beaux Arts section of the exposition, but the dozen or more canvases by the artists PEDRO BLANES-VIALE, C. DE SANTIAGO, and GUILLERMO RODRIGUEZ were sufficient to show us the artistic merit and talent to be found in this enterprising nation.

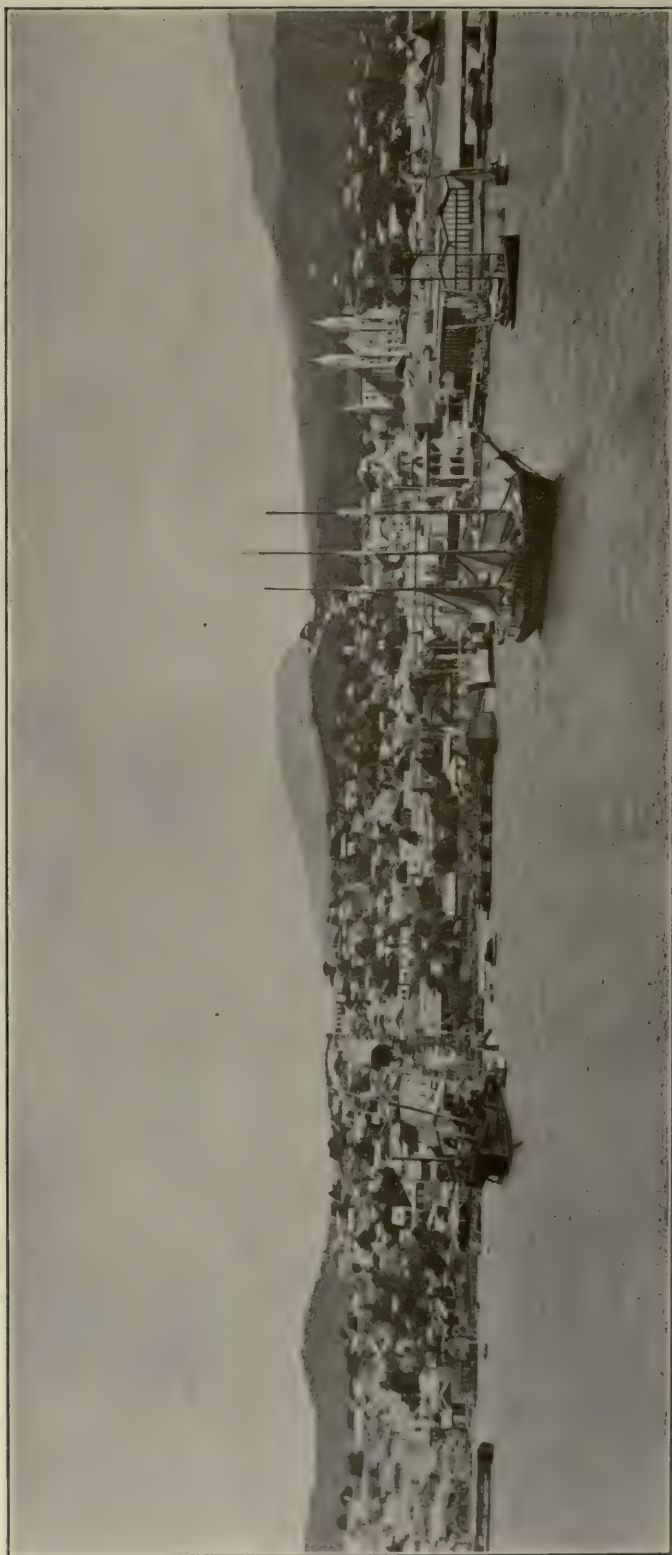
There were illustrations to show the marine work which, by the remarkable control of the tides in the bay of Montevideo, has made it the second important harbor of all South America.

The wealth of this country is derived in a great measure from its cattle raising, the last census showing 36,220,000 head. The making of beef extracts and concentrated bouillons, canned, salted and frozen meats, and dressed hides are only a part of this wonderful industry. The principal establishment of this kind is the Liebig Extract of Beef Company (Limited), founded in 1865; its products have become



LOCATED ON A HANDSOME TERRACE OVERLOOKING THE BEAUTIFUL FRENCH GARDENS, THE PAVILION OF URUGUAY WAS ONE OF THE SUCCESSES OF THE EXPOSITION.

so popular throughout the world that to-day its properties of Frey BENTOS and COLON cover an area of 3,750,000 acres—one-tenth of the Republic—and 375,000 animals are killed annually to supply the demands for this famous extract. Besides having a separate pavilion for the display of their produce, the Liebig Company had a large and interesting exhibit in the Uruguay building.



HARBOR OF PORT AU PRINCE, HAITI.

DEVELOPMENTS IN HAITI^a

Illustrated with photographs taken by the author.

NEW RAILROAD SYSTEM.

THE railroad contracts which the Haitien Congress recently ratified provide for the construction, by an American syndicate, of about 321 miles of 42-inch gauge railroad, which will be of inestimable value for the development of a large section of Haiti heretofore without adequate transportation facilities. The railroad system authorized will serve more than half the population of Haiti and will draw from considerably over three-fourths of the area of the country. It will connect four seaports with the interior, as well as place the whole north of the country in communication with Port au Prince, the capital.

The main line of the railroad system will be from Port au Prince, passing along the coast through Arcahaie, to St. Marc, 53 miles distant, then following up the great valley of the Artibonite River for about 115 miles, passing Varette, La Chapelle, Mirebalais, Las Coabas, and Hinche, and from there running northward, passing Pignon, Savannette, Bahun, and Grande Riviere to Cape Haitien, the principal northern seaport of Haiti, 205 miles distant.

There will be two branch roads. The longer branch will be from the seaport of Gonaives eastward to Hinche, 81 miles, where it joins the main line, having passed through Ennery, St. Michel, and Maisade. The other branch will be northward from Gonaives, passing Gros Morne, to Port de Paix, a northern coast city, about 35 miles distant.

The contracts provide that the railroad shall have first-class modern equipment, which will be purchased in the United States. The railroad company is authorized to issue for every mile of completed railroad \$32,000 of fifty-year first mortgage bonds bearing 6 per cent interest, payable semiannually, and having a sinking fund of one-half of 1 per cent semiannually, all of which is guaranteed by the Haitien Government, which so indorses the bonds.

The contracts further provide that the fares and freight rates shall be on a gold basis and the railroad is granted the right to use for material and fuel all the timber on the public lands in a zone about a mile on both sides of the railroad.

Haiti is primarily an agricultural country. For many reasons, chief among which has been the absolute lack of adequate transporta-

^a By Hon. HENRY W. FURNISS, United States Minister to Haiti.

tion facilities, agriculture has not received in recent years that impetus which it deserves. Under existing conditions transportation has been by pack animals, and in many cases the products have been carried long distances to market on the heads of the peasants. Roads frequently being impracticable and the distances great, the amount of produce which could be marketed by any one person was limited.

The writer has traveled on horseback over practically the entire section through which the railroad will pass and can therefore speak from personal knowledge. This section is, for the most part, broad and level plateaus and fertile valleys, the dim outline of the mountains showing in the distance on two sides. The only mountainous portion will be a short stretch from Hincbe to Grande Riviere. The soil along the route is either virgin or practically so, as for many years it has had no more than surface cultivation, and even that only in



PRESENT METHOD OF TRAVEL THROUGH COUNTRY.

the more accessible areas. The soil is well suited to farming, and being well watered, it is particularly adapted to such tropical products as bananas, cocoa, and sugar cane, while the hillsides adjacent thereto are excellent land for coffee and rubber culture.

The railroad will pass through large stretches of plateaus which to-day, without cultivation, would make excellent grazing lands, as they are covered with an indigenous grass, sometimes reaching a height of more than 5 feet, and in the dry season standing perfectly cured. Yet no cattle are to be seen grazing there because of the difficulty which would be encountered in getting them to market.

Other than the agricultural development which the railroad will assist, it will also give an opportunity for the developmet of considerable mineral wealth in the shape of copper, iron, and coal (lignite), which occurs in large quantities adjacent to the railroad.



COAL AT MAISSADE.

The coal seam commences at the feet of man in picture and extends upward.

Some of the deposits, particularly the copper about St. Michel and Grande Riviere and the coal near Maissade, have already been prospected and declared satisfactory, but could not be worked, as there was no way to get the mined product to the coast except by pack animals, which would make the initial cost too great to leave any profit in mining.

The railroad line will be adjacent to large quantities of logwood, cedar, mahogany, and other hard woods which heretofore it has been impossible to market, while great forests of pine wood occur on the ridges of the mountains at the base of which the railroad on many occasions will pass.



COUNTRY PEOPLE COMING TO TOWN.

A few days ago, in accord with the contracts, work actively commenced on the railroad out of Gonaives. The engineers and others who arrived were the recipients of quite an ovation upon their arrival, and the prospects are that the work will be rushed to completion.

In connection with the railroad contracts the Haitien Government also granted to the same syndicate of Americans a plantation concession, which has for its object the introduction of the culture and exportation of bananas and other tropical fruits. Provisions are also made for the cultivation of sugar cane, cocoa, rubber, etc.

The syndicate has the exclusive right to lease all unoccupied public land along the aforementioned railroad up to 12 miles on both sides of the track. The exclusive right to export bananas during

fifteen years is also given to the syndicate for all ports to the north of and including Port au Prince. The export duty is fixed at 2 cents a bunch and ships taking bananas as cargo are exempted from all taxes and dues.

Banana culture will be practically a new industry in Haiti. Heretofore not enough for local consumption have been raised. That they can be raised, and successfully so, can be attested by a visit to the section around Arcahaie, which makes a business of supplying bananas to many sections of the Republic where they would grow just as well if any attempt were made to properly cultivate them.

With the vast area of land suitable to banana culture, which is available in the section tributary to the railroad, Haiti gives promise of being in the near future a great shipper of bananas.



WEIGHING DYEWOOD AT GONAÎVES.

NEW WHARF AT PORT AU PRINCE.

The large modern reinforced concrete wharf at Port au Prince, accepted by the Haitian Government and now in operation, not only marks a long step in advance of the old system of communication with ocean-going vessels at that port, but is an engineering feat of sufficient importance to warrant description. Heretofore it was necessary to take treacherous open small boats to go to and from vessels, and cargo was placed in lighters that were often leaky and causing much damage and claims. Now vessels drawing up to 25 feet can go alongside of the wharf with perfect safety. Passengers can walk to and from the ships, while all cargo is taken thereto and from and loaded on cars which run from the custom-house on the mainland to the warehouse at the end of the wharf, 2,526 feet distant in the bay.



CUSTOM-HOUSE, PORT AU PRINCE, HAITI.

The wharf was built by a New York company for an American syndicate which has recently made investments in Haiti. The cost was about \$325,000.

The wharf is built under a concession from the Haitien Government, which grants to the syndicate the wharfage dues on steamers and sailing vessels, whether they come alongside the wharf or not, plus \$1 per ton on all merchandise landed and \$1 per ton on all merchandise shipped, for a period of fifty years, after which time the wharf will be the property of the Government.

The wharf has an 80-foot fill at the land end, then a section 24 feet wide and 825 feet long; a section 24 feet wide at one end and 50 feet at the other, with a length of 146 feet; a section 50 feet wide and 515 feet long; a section 50 feet wide at one end and 60 feet at the other, with a length of 60 feet, and a 60-foot wide section 700 feet long, on which is a warehouse 600 feet long and having 27 feet of water and over along its side. The warehouse is constructed of steel with corrugated steel sides and roofing.

Extending the whole length of the wharf is a passageway and railroad track, and for a part of the way in the sections near the warehouse there is an additional track.

The piles are known as the Ripley patent reinforced concrete piles. They have for a base long pine timbers, around which, between a wire mesh, is wound concrete of 1:2½:5 mixture, and this reinforced by longitudinal steel rods upon which a final coating of 1:2 cement mortar is spread for finishing. The piles have an uncovered wood point 4 to 5 feet long with an uncovered driving butt of the same length. They have a penetration of from 15 to 30 feet. The greatest length of pile used was 57 feet. They were driven at 10-foot centers, the number of rows varying with the width of the wharf. There were used 1,081 piles, with a total length of 41,851 feet of concrete piling.

Commencing from the portion above water of the cement of the pile there was constructed an 8-foot high surface roadway of reinforced concrete above the girders. The roadway is supported on arches extending from pile to pile. There was used in the reinforcing 67,540 linear feet of twisted inch-and-a-quarter steel bars and 150,000 feet of ¾-inch bars, while in the concrete work above water—that is, the arching and platform of the wharf and warehouse foundation—8,715 barrels of cement were used.

The outer edge of the wharf for a considerable distance has 12-inch creosoted pine spring piles, to which are bolted 8-inch by 12-inch dressed clear pine timbers for fenders.

With the inauguration of this wharf Haiti has a right to be pleased, as it will have the finest wharf in the West Indies and the largest in the world where this system of concrete piling has been used.

UP COUNTRY IN PANAMA.^a

I MADE the 300 miles journey up to David, the capital of the Province of Chiriqui, in a coasting steamer of the house-boat type, with open lower deck and galvanized-iron roof over all—20 feet out of water and only 6 feet draft with full load.

David was founded somewhat more than a century ago by the first of the Panaman OBALDIAS, who created a princely estate from a royal grant of land. Mangote, situated about 8 miles from the town, is now in the hands of his great-grandsons, whose father was lately President of the Republic. Before the revolutionary days many Chiricano landowners maintained a lordly state in peace and prosperity.

David is an attractive place, clean and orderly as a Dutch burg and picturesque as a Tyrolean hamlet. Along the broad, drab lengths of the streets are lined modest dwellings with whitewashed walls, red-tiled roofs, and blue and green doors and window shutters. The most pretentious residences are no more than two-storied frame structures, with 10 rooms at most and a patio in the rear. Of the 5,000 inhabitants perhaps 50 are "well to do," in the conventional sense of the phrase. The remainder are superlatively poor, measured by the standard of dollars and cents, but passing rich in fact by reason of having everything that they need and probably all they desire. Everyone seems to secure an easy livelihood, but precisely how is difficult to determine. A hard worker is not to be seen, but neither is a beggar nor a vagrant, and the municipality does not boast any such institution as an almshouse. However, the matter is divested of much of its mystery when one considers that land as prolific as any in the world is to be had for the taking, and a man's outfit of clothing consists of three pieces—straw hat, shirt, and cotton trousers—while a woman gets along very well with one garment, and children are not encumbered to that extent.

Although the dry season was well-nigh spent, everything looked fresh and green the morning that I galloped out upon the llano on my way to Divala. My moso, a long, lean fellow with a melancholy visage, followed at a pace which he never varied, but which later experience taught me could always be depended on to bring him up with me at the end of a ride. Man never possessed a less appropriate name than his. Pantaleon—"panther lion"—was possibly bestowed upon him in a spirit of irony. He was profoundly self-possessed and had the commendable characteristic of confining his attention to his

^a By FORBES LINDSAY.

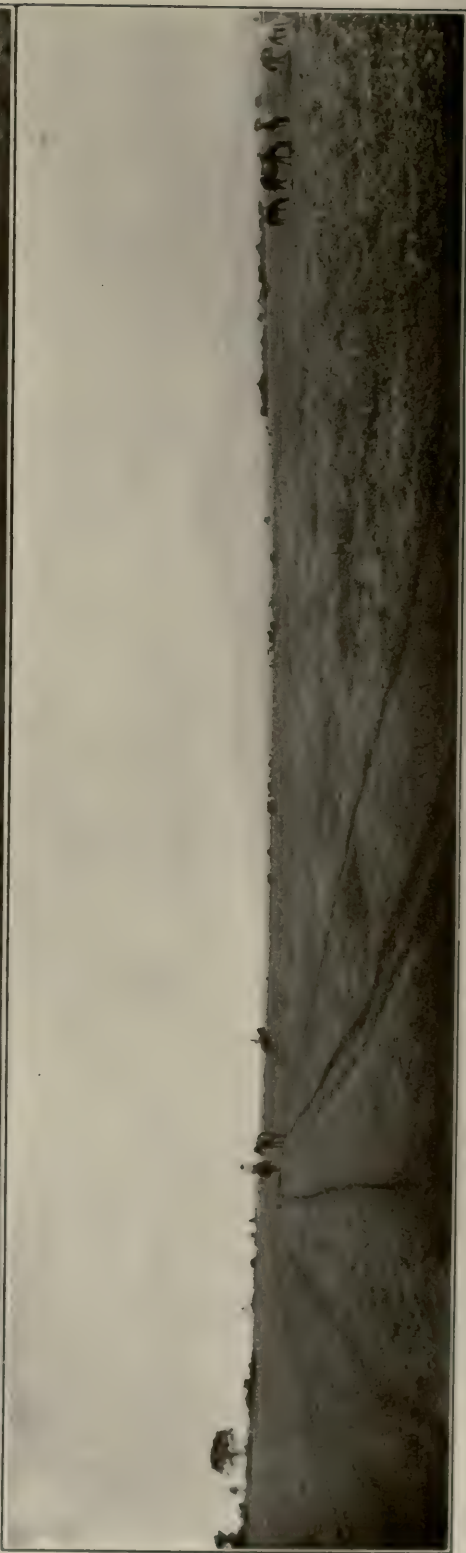
own business and just so much of his employer's as properly concerned him.

Before us stretched one of the llanos, which lie, like grassy islands in a forest sea, at intervals all along the Pacific slope of the Cordillera. For 6 miles onward and 2 on either side of us the ground extended in a sweep as level as a billiard table and as green. With its thick covering of *jenjebri*llo, the tract looked strikingly like a bit of the blue-grass country of Kentucky. Here and there a wild fig or a *ceibo* threw its heavy-leaved branches wide, affording grateful shelter for man and beast. On every side the close ranks of the forest trees hemmed the llano in, and away beyond in our front rose the jagged teeth of the sierra, with the smoking cone of El Volcan projecting beyond the ruck. And over all an unbroken sky of limpid blue, out of which blazed a tropic sun, but so tempered by the ever-present ocean breeze that riding at noonday is not unpleasant.

A well-worn cart track indicates the shortest route to the point where the road enters the forest. We keep it in sight for the sake of preserving our bearing, otherwise one might ride unrestrainedly on the darkest night over this flat expanse, unbroken by gullies and devoid of burrows. In fact, I have crossed it at a hand gallop in a downpour of rain, when my horse's ears were not distinguishable and the blurred lights of David made a lurid beacon patch in the distance.

These llanos are the "commons" of the people—the poor man's grazing ground. We pass small herds of from 10 to 20 head, nibbling the herbage, which is ample for sustenance but not sufficiently rich and plentiful to condition them for market. So the small owner sells his steers to one or another of the ranches that maintain *potreros*, or made fattening grounds. A lean steer fetches from \$15 to \$18, and after reveling for six or eight months among the guinea grass and *savoya* and *jujuca* of the *potrero* it will bring \$30 or \$35 in David. Since the cost to the cattle raiser of transforming a lean steer into a fat one is less than \$1, the profit in the business is patent.

Scattered over the range are a few mares, with foals at their heels. In this country they ride and work only the male horses, leaving the females constantly at grass. This is obviously a bad system, for it retards hereditary transmission and results in the development of serviceable qualities on one side only. The animals are undersized and the breed poor, the best strain being derived from Peruvian stallions. Despite his unpromising appearance, however, the Panamanian pony is apt to surprise you with a wonderful display of stamina. I have been carried fifty-odd miles by one in twelve hours and found him fit for a good day's journey the next morning. They are easy-going beasts, with a single-foot gait, and if one will be content to ride them in the manner to which they are accustomed, quite as serviceable as the average mount to be picked up in Central or South



UP COUNTRY IN PANAMA.

Upper picture: A street in David. Lower picture: A stretch of llano between David and Alajuela.

America. It is distinctly advisable, however, to get rid of the greasy hair bridle of the country, even though no better substitute than a piece of clean rope is available. Failure to take this precaution once cost me a sore hand of which I was not cured for weeks.

Now and again a traveler jogs by, with a muttered "*Buenos dias*"—a salutation that is never omitted by man, woman, or child. The rider wears a conical straw hat, a cotton shirt, flapping free in the wind, and a pair of blue jeans. Bare feet are stuck in the wooden stirrups. He and his steed are festooned with bags, baskets, and packages, the *tout ensemble* suggesting an itinerant Christmas tree. Stuck under the saddle flap, or elsewhere beyond ready reach, is a rifle or shotgun, of ancient make, probably unserviceable, and almost certainly unloaded. Everyone goes armed upon the road. The custom is a survival of the not-distant period when bandits infested the provinces, but to-day the traveler is as safe as he would be on Broadway in broad daylight.

Occasional reminders of less peaceful times are seen in a small wooden cross set in the ground and surrounded by a rude rail fence, indicating the spot where some unfortunate met a violent death in the commission of a crime. Pantaleon rode alongside as I approached one of these unconsecrated burying places that contained two crosses. With emotionless precision he told the grizzly tale of two *compadres* who had fallen out and here had fought to the death with their knives.

Compadres are bosom companions, bound by a bond closer than that of brotherhood. Only a woman can break that tie, and when *compadre* turns against *compadre* hell knows no greater bitterness. These two hacked each other until they fell, gasping and bleeding, and foaming at the mouth, still jabbing with waning strength. They were found dead, locked in each other's arms. Perhaps at the very last the spirit of compadreship returned to soothe their passing.

I put this reflection to Pantaleon, but he declared it more likely that they died cursing each other and thinking of the girl. My own conclusion pleased me better, but I felt bound to defer to my *moso's* superior knowledge of the characteristics of his countrymen.

Presently the road entered the monte, and we rode between wooded walls reenforced by heavy undergrowth. At long intervals we passed small clearings where the settler had cut over the ground, burned the débris where it fell, and scattered his seed with a careless, confident hand. The machete is the universal agricultural implement. A plow has never been seen in the country. Cultivation is neglected as an unnecessary trouble. Withal, harvests are bounteous and recur with the infallible regularity of the solar system. I saw fields of sugar cane that had yielded rich crops for fifteen unbroken seasons, and a piece of land which has stood in corn continuously for half a century.

All over the Pacific slope of Chiriqui is a topsoil, from 6 to 20 feet thick, formed by the volcanic detritus washed down during countless ages from the mountain sides. It is rich as any in the world, but not one-hundred-thousandth part of it has been turned to the account of man. Outside of David, the population is less than 4 to the square mile. Apart from a score of cattle raisers and coffee growers, no man produces more than enough to meet his needs, whilst markets at their very doors are crying aloud for the potential products of the province. Panama is paying high prices for Jamaican fruit and Cuban sugar and American tobacco, whilst these and many other imported commodities can be grown within her borders.

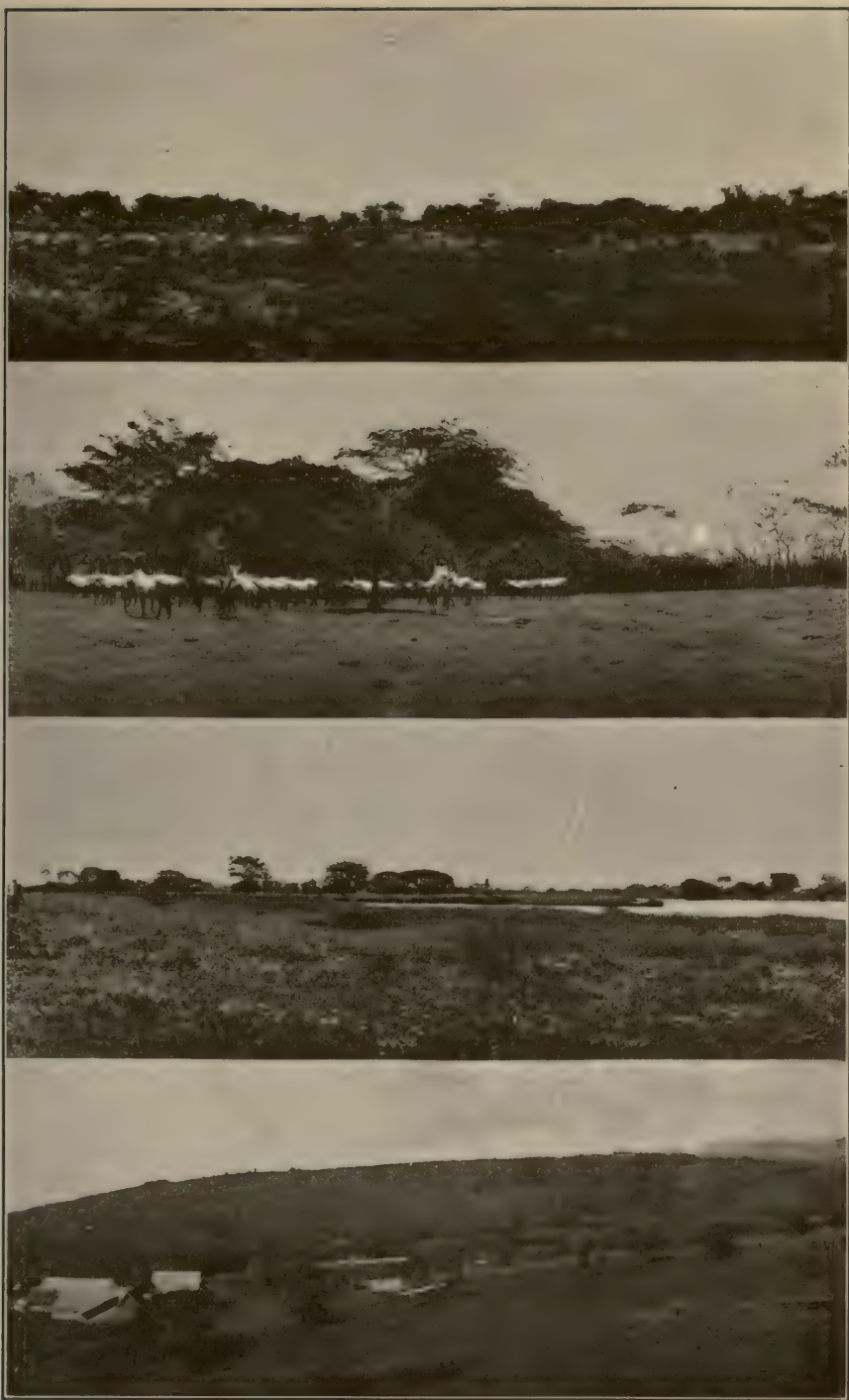
The pathetic mystery of it is that tens of thousands are slaving in city sweatshops and factories, or painfully wringing a living from a reluctant soil, when land unlimited lies waiting to richly reward any man who will cast a handful of seed upon it.

Ten miles out from David we came to Alanje, a *pueblo* of only a few hundred inhabitants, but a place of consideration in this sparsely settled country. There are no hotels in the interior, nor is there need for them where every door is open to the wayfarer. The first glance around the plaza of Alanje will decide the discriminating stranger to head for the comfortable-looking frame house on the south side, with its inviting veranda. Should he not immediately take that direction, the little *cura*, in his long black robe, is likely to come to the door and shout a welcome.

The midday breakfast at the *cural* was an excellent meal, reenforced by good wine and superb coffee. The pleasures of the occasion were heightened by the entertaining remarks of my lively host. He was very young and very optimistic, quite content with his lot and properly impressed with the importance of his work. It appeared to me that his life must be a lonely and monotonous one, but he did not share my view of it. He was the only man of any education in the village, but two highways and several byways converge at Alanje, and every few days he might look for a passing visit from some intelligent traveler. His duties occupied three or four hours of the day and the rest of the time he filled in with study, for his ambition pointed to advancement in his calling, whilst his environment had awakened an inherent taste for natural history.

We left the table to walk over to the church, with its curious detached tower. I asked for the records. With righteous indignation blazing in his eyes, the little *cura* laid before me a pile of leather-covered manuscripts, molded, worm-eaten, and torn. Not a page was intact, hardly two consecutive lines legible.

"Such neglect is crime," said my host, fervently. "I need hardly say that the damage was beyond arrest when these came into my hands," he added.



PUBLIC LANDS IN PANAMA.

1. Burned over beach land, cleared only with machetes, ready for planting in cocoanuts, on public lands of Panama. This land is rich in pulverized shell, sand, and dark brown loam, and is ideal for cocoanut raising. 2. Horse corral on a small section of public land in Panama. The new land law provides for the taking up of 30 acres of grass land for each individual holder for such purposes. This is on the edge of the woodlands, where it adjoins the open range. 3. River bottom grass lands on public lands of Panama. The rich, wide blade grass of these bottom lands will support one head of cattle to the acre during the dryest seasons of the year. 4. View in the Boquete Valley. Coffee planters' houses in the foreground. These public lands are the richest coffee lands in the whole Republic.

I fully appreciated his feelings. Indeed, I dare say that my own regret was the keener. Alanje is older than David. In fact, its history merges with the times of the Conquistadores and there is no knowing what wondrous tales may be hidden in those sadly mutilated documents.

"Our church has a legend," remarked the *cura*, leading me to a large alcove on the left of the chancel. Drawing aside a curtain, he revealed a life-sized painting of the Christ in his final agony. It was evidently the work of an artist, but did not betray extraordinary ability.

"I don't know when this came here, but it was certainly before the present generation," the *cura* explained, with a slight show of embarrassment. "The story goes that one evening a stranger came to the village and, declining shelter elsewhere, begged to be locked alone in the church over night. His request was granted. When the curious villagers came early in the morning to look for him he had gone, and the picture, with the paint fresh and wet, hung where you see it."

I looked at the little *cura* questioningly.

"Oh, I don't know," he said, with a shamefaced smile and a shrug of the shoulders. "At any rate, my people believe the story firmly, and it does them no harm."

On the road between Alanje and Divala we crossed several streams. A better watered country than this could not well be imagined. Along the 400 miles of Panama's Pacific littoral no fewer than 300 rivers run into the ocean. At this late stage of the dry season many of them barely cover their rocky bottoms with a foot or two of water, but the first month of the rains will fill their ample channels and send them rolling down to the sea in a robust volume. The broadest are bridged. In other cases one has to negotiate two steep banks in order to effect the passage. This is easy enough for saddle horses, but the manner in which heavily laden bullock carts are got across is simply marvelous.

Alligators are numerous in these streams, but they very seldom harm human beings, and the natives bathe without fear or precaution.

The owner of the ranch toward which we were journeying once had a humorous adventure, which involved unpleasantly close contact with one of the reptiles. He was crossing a stream, homeward bound, on a dark night, when his horse suddenly reared and threw him. He came down upon something that set up a prodigious splashing and lashing, and scuttled away from under him. The man got to his feet in the shallow water and floundered to the bank with all possible haste. His horse had gone tearing off into the night in blind terror, and he was shaking in a nervous chill, but no doubt the

alligator, so rudely disturbed in its slumber, was the most frightened of the three.

About 2 miles on the hither side of Wilson's property we came upon a beautiful grove of breadfruit trees, and I learned later that they had been planted by a German who had come out to that part of the country twenty years or more before with the intention of raising pigs on an extensive scale. The plantation, which was designed to supply food, was a pronounced success from the point of view of arboriculture, but the porcine part of the venture proved a failure for some reason that I was unable to ascertain. Swine raising should be a profitable industry in Chiriqui.

Before coming within sight of the village the road brought us alongside of a line of four-ply barbed-wire fence, foresightedly strung on live posts, which marked the boundaries of one of the best-kept ranches in the province. An unusual degree of orderliness and care was evidenced in the absence of weeds and undergrowth and in the signs of annual cleaning and planting.

Divala is a little settlement of 50 to 60 huts and, perhaps, 300 inhabitants, who are entirely dependent upon the ranch and insure it a constant supply of labor. The people cultivate little patches, from which they derive almost all the foodstuff they need. A few weeks' work in the year at 60 cents a day will produce enough money for clothing and a moderate indulgence in the luxuries that are to be had at the village trading store. Some of the men make trips into the back country in search of rubber and orchids. Others hunt for the ancient Indian graves in which pottery and gold ornaments are found. *Huacals*, or burial places, once abounded in this district, but probably few remain undiscovered at this day.

Divala is 15 miles from anywhere, and the most unlikely place to look for an American family in a bungalow that has the appearance of having been transplanted from a New Jersey suburb. Mrs. WILSON has lived in this out-of-the-way corner of the earth for five years, and has had the companionship of her infant during the past eighteen months. There is not a woman of her own race within 40 miles. This is isolation, indeed, and I suspected that she must find it irksome, though she would not admit as much.

Twelve years ago LESLIE WILSON came out from California and settled in the neighborhood of Divala with half a dozen Americans and Britishers. They started coffee planting, and only learned after three or four years of wasted time and the loss of the greater part of their capital that their location was not at a sufficient altitude to secure the best results. The others abandoned their *fincas* and moved to Boquete, high up on the flank of El Volcan, where they have prospered and established an important industry. WILSON determined to stay where he was and take up cattle raising.

He had but \$200 and a few tools with which to start. The best land was to be had for nothing, but it required to be cleared, planted, and stocked. Both labor and cattle were much cheaper at that time than now. Nevertheless, \$200 would not purchase much of either.

As luck would have it, a revolution broke out shortly after WILSON entered upon his venture. His American citizenship insured exemption from interference to himself and his employees. This fact led a number of natives to offer their services to WILSON in consideration of his protection. Thus the settlement of Divala was formed and a large proportion of the ranch turned into *potrero* without a penny of outlay. The disturbed condition of the country reduced the prices of all property, and WILSON was able to buy the nucleus of his stock at very low figures.

The owner of Divala has worked hard and intelligently for ten years on the improvement of his property. To-day he has 5,000 acres of as fine land as any in Chiriqui, well stocked and furnished with all the necessary buildings. The ranch is easily worth \$50,000. Not a bad result of an enterprise started twelve years ago with \$200 capital.



ANCIENT TEMPLES AND CITIES OF THE NEW WORLD^a " " "

PACHACAMAC.

CENTURIES before the benevolent if autocratic sway of the Incas, in the days of prehistoric Peru, PACHACAMAC, "creator god of the world," "he who animates the universe," "world adjuster," was worshipped by primitive Indians. And despite the magnificent temple of Tiahuanco, that marvelous and enigmatic structure near Titicaca, 13,000 feet above sea level,



TEMPLE OF THE SUN FROM A DISTANCE.

and the splendors of QORIKANCHA's golden courts at Cuzco, the Pachacamac temple by the sea was regarded as more awe inspiring than either of the others. To its oracles all pilgrims flocked. But during the period immediately before the Spanish conquest these three rivaled one another in richness and sanctity.

Little is left of the old glories to-day. Walls rise, still showing bits of mural painting, preserved in the hot and dry desert air; indications of terraces remain, of courts and avenues, a labyrinth of city

^a By Mabel Loomis Todd. Photographs by the author.

streets; and thousands of skulls whiten the surrounding sands, grew some reminders of the multitude who formerly lived and worshipped at these ruined shrines.

Peru has few merely tourist visitors, and of these fewer still see Pachacamac, the trip from Lima being considered long and hard. But for one accustomed to the saddle (and little of South America can be otherwise seen), Pachacamac is comfortably accessible.

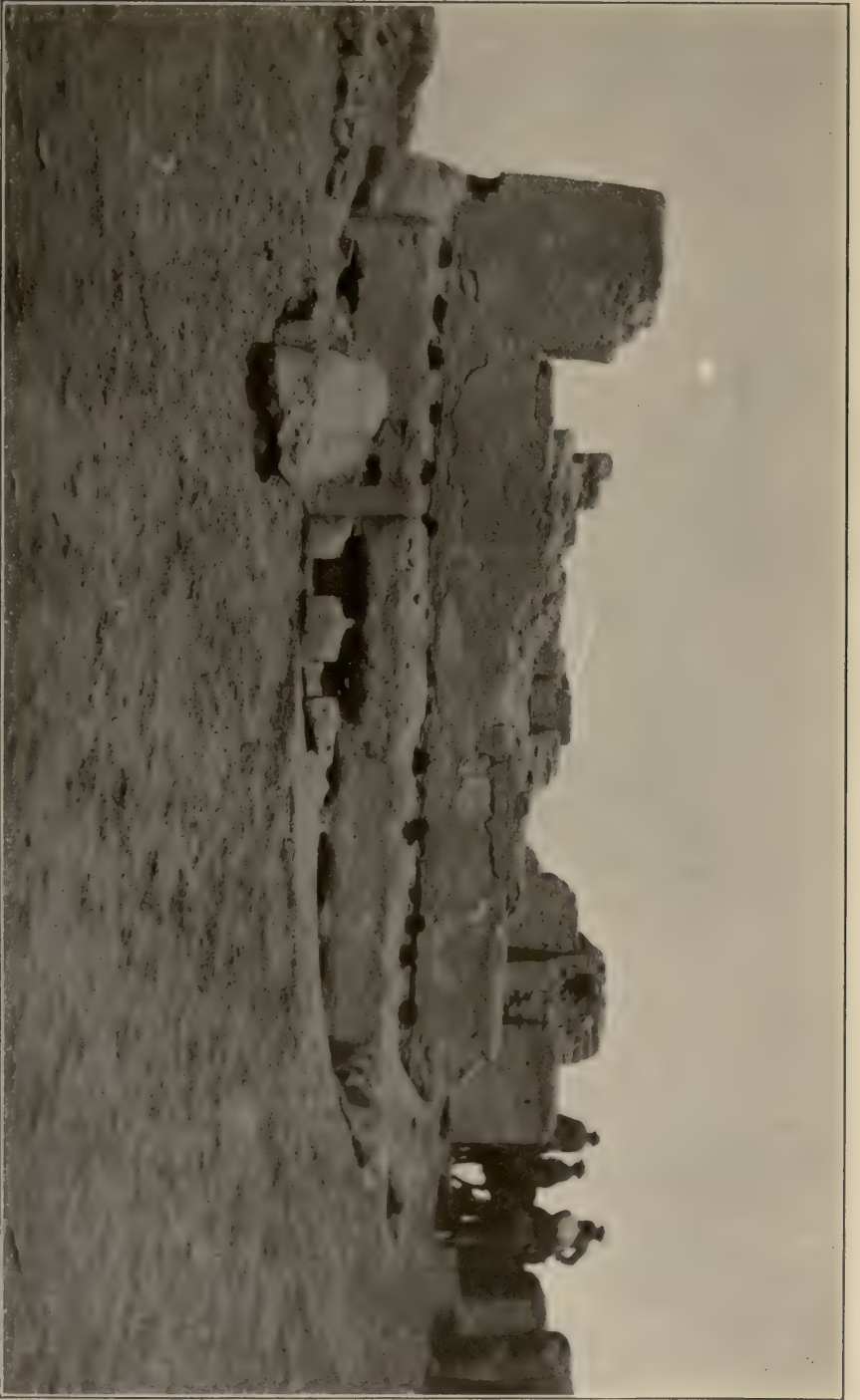
The simplest route is by the excellent electric cars to the pretty suburb Chorillos, beyond Miraflores, where horses should have been ordered in advance to await the traveler.

Over roadside walls of mud or adobe brick wild nasturtiums clamber in a riot of color; bare, high hills rise at one side; the battlefield of San Juan, famous in the Chilean war, and here and there populous *haciendas*, are passed before the open country is reached. A mile or two of jungle-like swamp follows, rich in interest for lovers of birds and growing things. But beyond this fertile tangle one may canter along the hard sand beach for nearly all the remaining miles. Sea birds in such myriads that the sun is actually darkened as they fly up at our approach, seven or eight lines of superb Pacific rollers breaking in thunderous surf, a rampart of high, sand mountains just back of the beach—and in two or three hours appear the familiar walls and dun-colored remains of Inca occupation.

For Pachacamac has been the scene of several superimposed civilizations, whereby its study is rendered more confusing than that of other ancient shrines. The many graves and their contents were seemingly at variance—chronologically inconsistent—with fragments of pottery and implements found near by. But it is certain that pre-Inca Indians had here their chief temple, and that when these all-conquering nobles with their hordes of willing workers arrived triumphantly upon the scene, so far from trying to wipe out the old faith they treated it with much respect, perhaps from prudential motives, building their great temple to the sun on the hill above, but still permitting, even encouraging, continued worship of the creator god, PACHACAMAC, so that the temple's religious prestige did not suffer under the Incas.

The Sun temple seems to have been built to include this earlier sanctuary, which shows an amicable relationship between the older cult and that worship of the Sun which the Incas ultimately imposed on conquered tribes.

A beautiful site these early dwellers chose for their rites. Although desert bounded on north and east, the temples themselves set in sand by whose encroaching drifts they are now half covered, toward the west rolls the blue Pacific, and southward lies the green and fertile Valley of Lurin, watered by its river of the same name, off whose mouth rise rugged islands, the wings of myriad sea birds



RUINS OF PRE-INCA STRUCTURES AT PACHACAMAC.

flashing in the sunshine as they dip and circle and soar about the lofty cliffs.

Only $2\frac{1}{2}$ miles wide at the coast, the little Lurin Valley narrows rapidly toward the interior. A mile and a half distant lies the village, on the same side of the river as the ruins. Only 500 inhabitants now belong here, but perhaps 2,000 can be counted in the whole parish. Modern Pachacamac holds about 300, its parish 3,000. Trees of many kinds abound—the willow (*Salix*) always prominent, with cane (*canillo*) and trees bearing the *chirimoya*, *palta*, *lucuma*, and other fruits. In old days maize and cotton were extensively cultivated here, and in many of the earliest graves seed pods of cotton have been found. It still grows easily in a soil surpassingly rich when irrigated. A nearby *hacienda*, apparently containing the most extensive of the ancient burial places, is chiefly devoted to the fluffy bolls and brown stalks of this plant.

The most scholarly and reliable authority upon Pachacamac history is undoubtedly Dr. MAX UHLE, now head of the new National Museum at Lima, whose superb and copiously illustrated report of the WILLIAM PEPPER Peruvian Expedition of 1896 was published in 1903 by the University of Pennsylvania, in the department of archaeology. To him is due elucidation of many puzzling anachronisms in this rich region, and it was our good fortune to be accompanied on this trip by Doctor UHLE—to whom every wall and angle and brick has absolute significance. To us also in consequence Pachacamac is a living, breathing story, so endued with the vitality of its ancient life that we can never again think of it as merely the dead ruins of a vanished race. With German thoroughness he has studied its every aspect and suggestion, until each terrace and broken doorway has yielded its meaning, to be welded together into an amazing narrative of a forgotten and almost prehistoric past.

The name of the creator god, as applied to sanctuary, town, and river, came into use only about one hundred and seventy years before the Spanish Conquest. No older name has yet been found.

Burial places always bring rich returns to those who can interpret their annals. Here is an enormous number of graves, not less than 60,000 to 80,000, among them a few stall-like cells, much cruder and earlier than the majority. Graves are found in the open, in houses, in temples, most of which have, years ago, been rifled for the gold, silver, and gems supposed to be interred with the dead. The soil of the cemeteries is literally choked with bones of the earlier race and with unbroken mummies of a later epoch. We rode practically over a clattering pavement of skulls and bones to reach the temple itself. All devout worshipers wished to lie near their shrine in death—a privilege reserved for princes, priests, and those pilgrims wealthy enough to bestow large gifts upon the sanctuary.

But when graves of different epochs are mixed, and not in separate strata, as frequently happens here, historical segregation—proper assigning to definite epochs—becomes exceedingly difficult. Contents of the graves must be kept carefully distinct. It is evident that this cemetery was used from the period of Tiahuanaco down to the Inca time. Many deformed skulls have been unearthed here, showing a greater variety of the strange, artificial shaping than in any other single locality.

Previous to the Inca conquest probably at least two civilizations met at Pachacamac—the culture of the highlands and the newer customs of the coast. After a cemetery had been used for a long time the temple was destroyed; even the sort of civilization itself was changed. A third epoch shows a cultural decline, inferior but supplanting, despite the general advance of the world at large. The founding and growth of the Inca Empire was one of the last great events of pre-Spanish centuries.

Although Pachacamac graves were so rich in articles from which the story of the past can be read, larger outlines of life and custom may be traced in the ruins of town and temples. Evidently the old city was twice enlarged, traces of newer walls well outside the original limits being still plainly visible. Within its outer walls the city area was approximately $2\frac{1}{2}$ miles in length by about $1\frac{1}{2}$ in width.

Approaching from the north, one sees first the convent, still called by its ancient name, Mamacona ("mothers," as applied to the nuns), and a subject of especial study by Doctor UHLE. In the land of the Incas celibate women were not uncommon, and were generally attached to some temple of the Sun. The Mamacona was secluded on three sides, the front only facing plain and sea, with entrance openings. No fewer than 200 of these nuns lived here, and they were obliged to pass through the inner and outer sanctuary of Pachacamac to reach the Sun temple.

From the convent it is best to pass on to the former, a huge structure 400 feet long, 180 wide, and covering two-thirds of an acre. Once there were terraces on three sides, each 20 feet high, but the sand has so blown in and over and about them that they are really discernible now upon only one. Its approaches are by five low and narrow "grades," slightly over 3 feet high and 6 in length; the walls once covered with polychrome frescoes, rich in color, and extremely ancient, though traces of design still remain. These mural paintings on walls of temple and terrace were put only upon sacred edifices, and were of persons, fishes, or plants. Some grades were undoubtedly used for sacrifice.

The top of the temple is a large plateau, 330 feet by 130. It was at least once rebuilt before the Inca period, and may date from about B. C. 2000; but is not, in any event, later than B. C. 1100.

The valley, and indeed the entire region, was ruled by a chief at Pachacamac, who had the right to enter the temple of the highest deity, as, at a later epoch, the Inca might do, at Cuzco. At the center of the northwest front the holiest shrine was placed. We can follow shapes and sizes in hall and gallery, the walls of the large hall in ruins, but still showing that they were 11 feet high. The old "Bishop" probably stood here to receive the envoys of chiefs, after they had waited on probation for an entire year to come into his presence. A fast of twenty days was required before entering the first court, and of a twelve-month for the upper court. As little nourishment as possible was taken during this time, and an abstemious life in all particulars was enjoined.

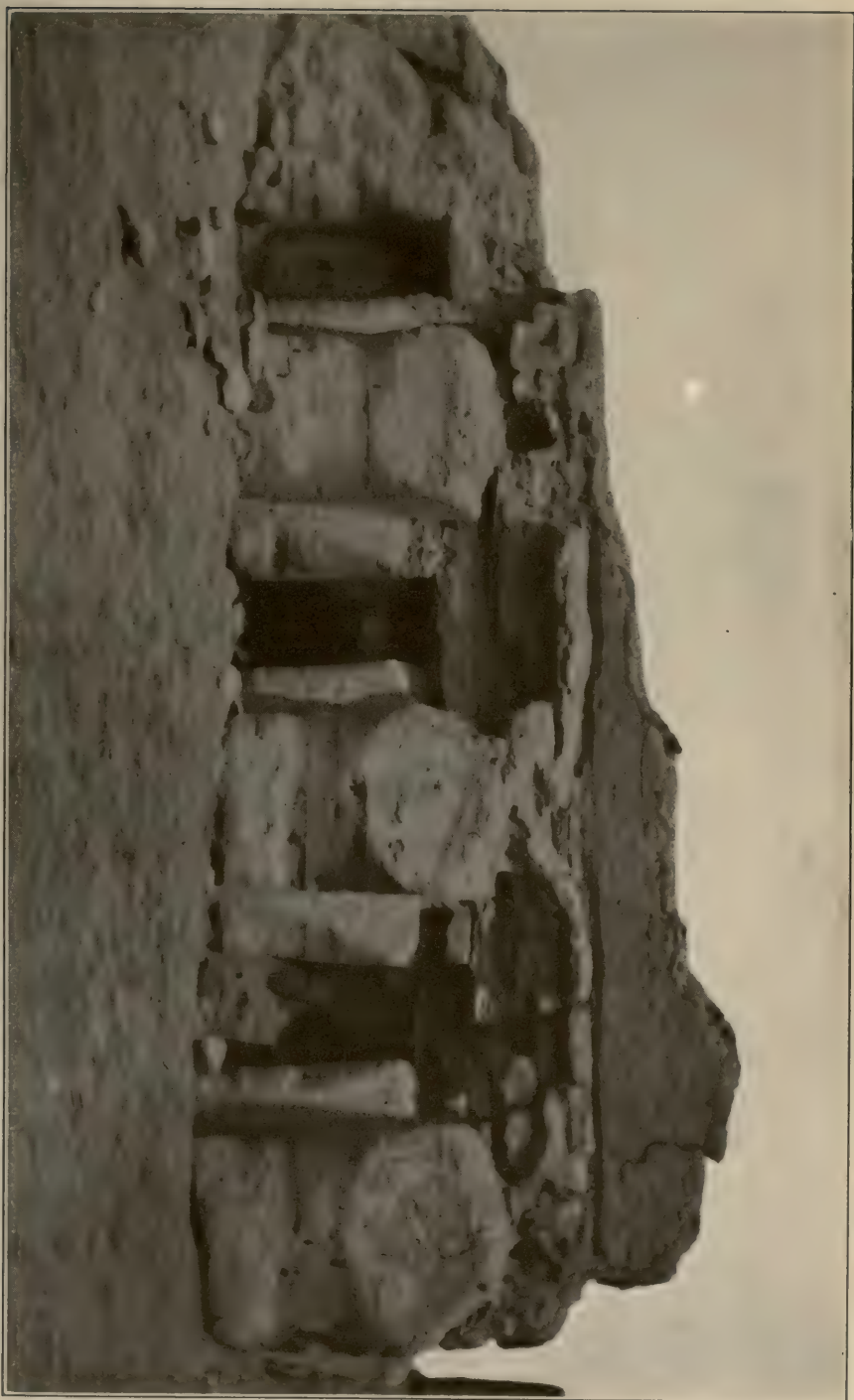


RUINS OF CONVENT OF MAMAONA.

All about this ruin are burial grounds of several epochs, containing upward of seventy-five thousand skeletons, many of them now scattered over the sands.

The ecclesiastical dignitary received the envoys with covered head, praying, after hearing the messages. PIZARRO disdainfully called it "having speech with the devil," when the old man retired to an adjoining cell.

Doctor UHLE has arrived at some most interesting and surprising conclusions as to the inaccessibility and extraordinary sanctity of this temple. As the shrine was completely demolished by HERNANDO PIZARRO, brother of FRANCISCO, so the entire temple seems to have been peculiarly the object of early fanaticism no less than of treasure hunters, which despite the rainless climate made of it a more complete ruin even than others in Peru. Smaller than the later Sun temple of the Incas, it was more gorgeous. Not only painted with designs in many tints, it was also, quite certainly, encrusted with precious stones, and gold presented by the Inca HVAINA QHAPAJ.



CONVENT OF MAMAONA.

No fewer than 200 nuns lived in this convent.

A sort of lodge, partly in ruins, stands near; perhaps a house of entry for Indian pilgrims, who often came 300 leagues with golden offerings to the god; and there are well-defined traces of two fine arcades, or walks, lined with pillars supporting a roof, which made approaches to the outer temple court.

Of the ancient city, at least one-quarter was occupied by the temple district and the remainder was divided by cross streets, 13 and 16 feet wide, with courts and buildings of palatial proportions. In the city are four hills, the walls encircling it all completely. On the northwest these barriers were from 11 to 13 feet high and in general 8 feet broad, although this was in places increased to 16. Vast crowds must have filled the city at many times, for the wide adobe housetops and walls, which were used constantly by pedestrians, are worn perfectly smooth on certain thoroughfares by the constant passing of multitudes.

Many houses had entrance only from the top—as may be seen to-day in parts of New Mexico and Argentina. Palaces always had few doors, often no entrance except from an inner courtyard. Even ordinary houses had terraces from 10 to 17 feet high, sometimes extending to the roof, 27 feet above the street. Often the rooms were in a semicircle on three “blind” sides, inclosing the entrance terraces.

And in the pensive modern sunshine we scrambled about through the narrow and choked streets on our horses of to-day, stirring into protest only an owl, some lizards, and one little viper basking in the warm day. Plants of the *tillandsia*, green in winter, but beginning to dry as September ushers in the spring, were rooted in the sand; and as we explored the ancient ways, Doctor UHLE's scholarly explanations interpreted what might otherwise have been unanswered problems of the past.

Outside the city walls is widespreading desert, one wall (distant only a half mile), not less than 20 feet wide and 475 yards long, still curving around the despoiled riches it once protected. Another wall, evidences of a dam or dike, and many wonderfully built irrigating channels seem fine remains of Inca workmanship.

Of all this great ruined area, the Sun temple itself is most conspicuous, rising 300 feet above the general level, on a series of terraces; four on the northeast and northwest, five on the southeast. The hill is about a third of a mile from the sea and a mile and a quarter in circumference. Riding among the skulls and opened graves of still another burial ground, the ascent is easy, past adobe or tapia walls still glowing with remnants of the deep Pompeiian red, which once completely covered them, but showing no traces of the gold so lavishly added. With many sudden turns and skirting numerous angles, the upper southeast terrace was at last reached, itself a small cemetery opened by Doctor UHLE years ago, but devoted

exclusively to women. Forty-six skeletons he found there, each with hair plaited like that of a young girl, and all having been strangled. Many interesting objects were interred with these sacrificial virgin sun maidens who were thus permitted to start on the great journey accompanied by all their favorite implements and ornaments. From this especial terrace, 310 feet long, nearly 50 in breadth, were taken textiles, girdles, pins, shoes and sandals, pouches and shouldercloths, pottery, plates, jugs, shell bead ornaments, calabash bowls, bracelets, necklaces, and combs, two copper bells, and a weaving staff. Thus well equipped, the poor little sun maidens, sacrificed to divinity, plunged into the unknown, each with a braided cord wound tightly about her throat and still clasping the helpless skeleton.



DOCTOR UHLE IN THE RUINED AUDIENCE HALL OF THE INCAS.

The picture shows the inside of the hall itself, in the temple.

In other graves, from a small cemetery near, were found numerous mummies and articles showing that those interred here were only of Inca nobility. These were classified by the headdress, which denoted rank, as well as distinction of tribe—also indicated by the ear ornaments. Certain colors conferred high honor and favor. A “llaut’u” made of braided cords was worn in a coil around the head, that worn by the Inca himself of crimson and blue, in four or five coils, with fringe over the forehead. His heir apparent wore the same, except that the fringe was yellow. Nobles wore black; but only the Inca might wear very short hair. The length increased as rank grew less.

But still upward, away from the dead, clambered our horses; and from the summit of the Sun temple we looked down on the same scene that greeted the eyes of the old Incas who worshipped here, and the desecrating gaze of PIZARRO and his fanatic followers when they rifled the treasures and mutilated the temple.

Slightly softened by a bluish haze lies, not far from the coast, the noble island of Lurin; nearer the lovely green valley, while the curving shore line bends southward to Cape Bubulusa 20 miles away, and up the river gleam the church towers of modern Pachacamac and Lurin, manor houses of several haciendas, and San Pedro and Buena Vista on the bluff. In the opposite direction the desert still shifts its stealthy sands over ruin and wall and pathway, to Chilca, and the foothills of the Andes 9,000 feet high and nearly 50 miles away.

Just at the river's mouth the ocean is so shallow as to suggest that the islands once belonged to the mainland. It has even been asserted by some writers that they were torn from the coast as late as the great earthquake of 1586; and Señor SILVA has said that at low tide they could once be reached "dry shod." At all events, as the sea washes up and in and over without ceasing, the shore line is constantly changing, from the continual bombardment of heavy surf, and is quite different now from its contour even in the time of Spanish Conquest. In old deeds is frequent mention of a place called Quileay, not now existing, and presumably sunk. At very low tides foundations of ancient edifices have been seen on the sea bottom near Lurin. On the islands, too, ruins of buildings have been found. Sea and sand are both tireless in change.

The modern history of this most interesting region begins with the journey of HERNANDO PIZARRO, ordered by his more famous brother, in 1533, to capture the temple treasures of Pachacamac. PIZARRO had heard of its splendors at Cajamarca, when the Inca ATAHUALPA had told him that "ten days away on the road to Cuzco" was a "mosque," chief sanctuary of a whole people, and held in highest reverence by himself and his father HUAINA CAPAC; and that it contained vast treasure in gold and silver offerings. But HERNANDO PIZARRO traveled only about 16 miles a day, taking twenty-two days to cover the 340 miles; whereas the swift Indian runners bore messages of warning in far less time (one old Indian once ran from La Paz to Tacna, 190 miles, in three days), and much of the golden treasure was removed or concealed before his arrival. Enough remained, however, for colossal riches.

His conquest was complete on reaching the sanctuary. He at once demolished the shrine of the temple of Pachacamac, and its most sacred idol, in presence of the whole people assembled, raising a cross upon the débris. Thus began the decline of what was once so splendid and so vital a part of the early life.

After taking Cuzco, FRANCISCO PIZARRO came, in 1534, to Pachacamac, holding wild orgies in the sacred courts, and still further horrifying a people already crushed and outraged.

The final struggle came, however, and the depopulation of the entire valley began, in the wars of MANCO INCA, who in 1535 gathered all the Indians in a futile death struggle with Spain. After that the sands blew in and over the old faith, actually and metaphorically; Franciscans, Augustinians, Jesuits came successively to the valley, and its distinctive history was past.

But the keenness of archæological vision has made the old days live again, has vitalized the ancient faith, and brought before modern eyes the actual daily life and worship of these prehistoric tribes, whose whitened skulls still cluster about their violated shrine.



PAN AMERICAN THANKSGIVING DAY IN WASHINGTON

FOR the second time in the history of this country the Republics of Latin America joined the United States in the observance of the time-honored Thanksgiving Day on Thursday, November 24, 1910. On this occasion, as on that of last year, the services were held in St. Patrick's Church, Washington, D. C., at the invitation of its rector, the Rev. Dr. WILLIAM T. RUSSELL.



Photograph by Harris & Ewing.

THE PRESIDENT AND MRS. TAFT ENTERING THE CHURCH TO ATTEND THE THANKSGIVING SERVICE.

The magnificent temple was filled to its utmost by the congregation composed of an illustrious gathering, as well as people from all classes in the city. There were present the President of the United States; the Secretary of State, Mr. PHILANDER C. KNOX, and other members of the Cabinet; the Latin American diplomatic representatives in



PROCESSION ENTERING ST. PATRICK'S CHURCH, WASHINGTON, DISTRICT OF COLUMBIA, FOR THE THANKSGIVING SERVICE
ON THURSDAY, NOVEMBER 24, 1910.

Washington; the assistant director of the Pan American Union, and other high officials of the American Government.

The Rev. CHARLES WARREN CURRIER delivered the sermon, a brilliant and impressive oration, touching on the suffering of humanity as a result of war, and predicting an era of peace throughout the world in the near future. Doctor CURRIER paid a high tribute to the women of Latin America for their part in promoting peace, and attributed the present harmony existing in these countries to their self-sacrifices and devotion.

The church was decorated with the flags of the nations represented encircling the tall marble columns, while on the pew of each diplomat was a small flag of his country. The President's pew was adorned with his own pennant, an eagle on a field of blue, with stars surrounding. The President and Mrs. TAFT arrived at the commencement of the service and remained until mass was concluded. The attendance at the services, it is stated, was the largest that ever graced the vast auditorium of this cathedral.

Adding dignity and solemnity to the services, were present his eminence Cardinal GIBBONS, seated within the sanctuary to the right of the altar, and Archbishop DIOMEDE FALCONIO, the papal delegate, who occupied a throne at the epistle side.

At the conclusion of the services, the members of the Cabinet, the diplomatic representatives, and other prominent persons attended a luncheon at the rectory, tendered in their honor by the distinguished pastor. On account of a previous engagement President TAFT was unable to attend. The exercises at the luncheon were begun by Father RUSSELL, who called upon Cardinal GIBBONS as "the representative of his holiness the Pope of Rome, and the highest church dignitary in America," to offer a toast to the President of the United States. With arbitration as his theme, the venerable prelate dwelt on the importance of the meeting of the representatives of different nations, and said:

I congratulate Father Russell on the conception of the Pan-American feast day and the success that has attended it this year. A gathering such as this, by bringing together the representatives of American Republics, will facilitate, I believe, a peaceful settlement of any difficulty that may arise in the future.

I hope that the day may come when the sword will give way to the pen and the voice, and instead of having recourse to bloodshed in order to settle difficulties, a court of arbitration will be established to accomplish the end which war formerly achieved, without the loss of life and property.

As one who is deeply interested in the cause of peace in the Western Hemisphere, I propose the health of the President of the United States.

Secretary KNOX, in replying for the President, said that Mr. TAFT "is too well known and beloved to need a eulogy from anyone." He declared, however, that it was the desire of the President that the present friendly relations between Latin America and Anglo-Saxon America continue in the future as they had in the past. "The alliance which exists between North and South America," said Secretary Knox, "is one of the great causes for thanksgiving in all countries."

After the Secretary had concluded his remarks, Father RUSSELL offered a toast to the Presidents of Central and South America. To this Señor Don FRANCISCO LEON DE LA BARRA, Ambassador from Mexico, replied as follows:

I feel greatly honored to respond, in the name of my distinguished colleagues of Latin America, to the kind words addressed to us by the Rev. Father RUSSELL. We are sincerely grateful for his invitation and for the sentiments he has expressed, and we wish to show him our deep appreciation of these proofs of kindness.



Photograph by Harris & Ewing.

THE AMBASSADOR OF MEXICO AND SECRETARIES OF THE EMBASSY.

Señor Don Francisco León de la Barra, Ambassador of Mexico to the United States;
 Señor Don German Bülle, Second Secretary of the Embassy;
 Señor Don Luis Ricoy, First Secretary of the Embassy.

These manifestations of earnest friendship toward Latin America which we have received during recent years in the United States are most significant and of the greatest importance. It is not only the Government of the United States that shows, as well as our own Latin-American Governments, the desire of furthering and making more cordial the relations among our respective countries. Financial and commercial associations study the conditions of our Republics with the object of investing therein more capital to the advantage of all. In universities and museums our mineral riches as well as our fauna and flora are also studied. All this work of statesmen, business men, and scholars has brought closer together the Latin-American countries and this great Republic—but, in another sense, we are still far apart. Prejudices exist which divide us and will continue to do so for some time.

In order to dispel these prejudices, the good work done in the United States by the good friends of Latin America is most important, because through this work the true conditions of the peoples of our Republics are clearly shown, as well as those qualities that make them worthy of respect and consideration.

One of these noble friends of Latin America is the Rev. Father RUSSELL, for whose happiness I invite you all to raise your glasses. Let us help to make successful the work of all those who strive for the establishment of firm peace throughout the world and for the creation of bonds of affection among all our nations, based upon a sincere esteem.

In concluding, the Ambassador proposed Father RUSSELL's health and expressed the hope that the third celebration of Pan American peace would be held in St. Patrick's Church next year. Father RUSSELL, in reply, proposed the health of the Secretary of State, and concluded with an invitation to all of those present to attend similar services on Thanksgiving Day, 1911. The invitation was accepted.





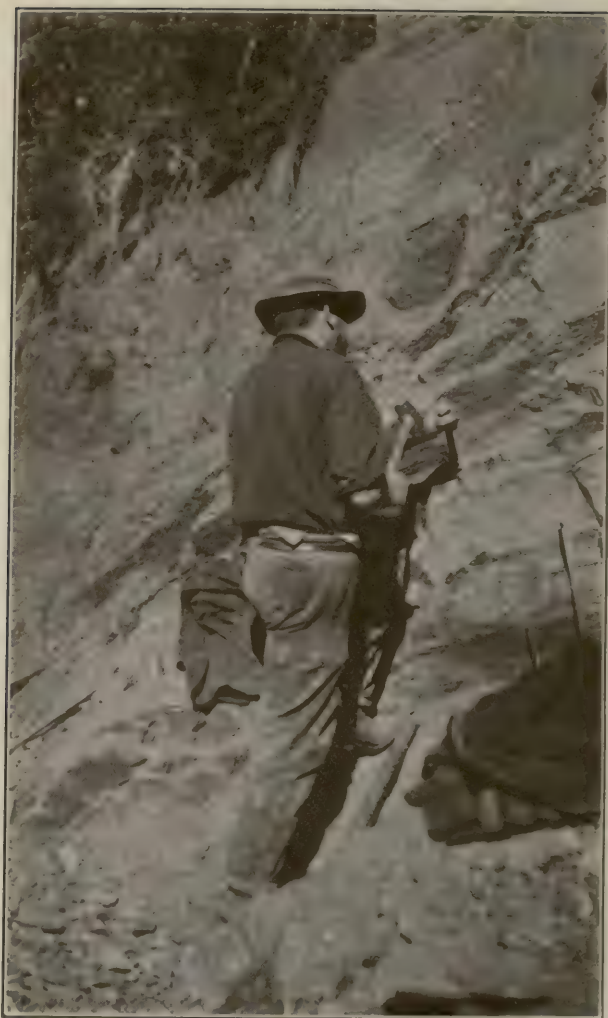
Photograph by William V. Alford.

A BOLIVIAN ORE CARRIER.

TIN MINING IN THE AMERICAS

WHETHER tin, as such, was known to the ancient world is a mooted question. Most probably it was not, although the alloy of copper and tin called bronze was used ages before that time whereof the earliest legends run and loosely called the dawn of history. It is common to say that the age of bronze followed the age of stone and that both are prehistoric. Unscientific as is such a marshaling of "ages," and untrue if applied to man the world over, it yet presents a picture something near the known facts about that part of the ancient world which lies around the Mediterranean Sea. Bronze was no doubt the first metal here used by man, just emerging from the lowest state of savagery. Its superiority for the forming of weapons and tools over flints, bones, and fire-hardened sticks was manifest. Whence the European savage derived it, by what process the metals were separated from the ore, whether the alloy of the two metals was made by man or fortuitously occurred in nature, are interesting subjects, but not within the scope of this article. The fact is, however, that had pure tin been the first metal known it would have received but scanty consideration from primitive man; for, except for its weight, which would have rendered it suitable for a mace or club head, its want of strength and softness is such that for his uses it would have been inferior to flint, bone, or even fire-hardened wood.

The remarkable property which certain metals have, and among these tin is one of the most conspicuous, that when alloyed with another metal the compound possesses a quality of strength, hardness, malleability, or resonancy superior to that of either of the metals entering into the compound is what in its first use gave value to the union of copper and tin called bronze. At a later period in the world's history the property which tin has of not tarnishing, or rather of being in a high degree resistant to the decomposing action of air, water, and the common acids and alkalis, was taken advantage of in the use of the metal as a coating for harder and stronger but more easily affected metals, like iron or steel. Tin alone has even now but few industrial uses, principally in the making of certain pharmaceutical instruments and tin foil. For almost every other purpose for which tin is suitable an alloy of tin and copper, or tin and zinc, or tin and lead, or steel, iron, or brass coated with tin, is more suitable, and it is these uses of tin, as an alloy or as a coating, which give it



Photograph by George W. Dean.

BEGINNING OF A NEW TUNNEL IN A TIN MINE.

In some instances the tin deposits are to a great extent superficial; in others they have been followed to depths of 1,600 feet. The width of the veins or lodes is variable, ranging from a few inches up to several feet. In some veins the ore is almost pure cassiterite; in others it occurs in the form of crystalline grains or nodules in a matrix of tenacious clay or in a ferruginous mass. These latter veins are often 10 feet or more in width, while the former do not ordinarily exceed 2 feet.

its real value and its place in the arts and industries. Just as primitive man would have found but little use for pure tin, so civilized man might easily dispense with it were it not for its use as an alloy or as a preservative coating. As such it is of enormous use to the world and easily ranks among the four or five most valuable metals. Of the so-called common metals it is the least widely distributed and the most costly.

The value of the imports of tin into the United States as given by the Bureau of Statistics is now about \$30,000,000 a year. In 1907 it amounted to nearly \$43,000,000. This includes ore, bar and block tin, and some of the manufactures thereof, and also tin plate, but does not include the ordinary alloys of tin, such as bronze, pewter, gun metal, and bell metal, nor does it include a very large importation of manufactured articles in which tin is a considerable and sometimes the major element of value.

For 1909 the figures were as follows:

Article.	Quantity (pounds).	Value.
Tin plates.....	118, 115, 771	\$3, 230, 659
Cassiterite.....	26, 661	3, 134
Bars, blocks, pigs, etc.....	91, 133, 413	26, 007, 216
Foil.....		43, 612
Manufactures.....		60, 251
Total.....		29, 344, 872

This exceeds largely the imports of any other metals except iron and steel—gold and silver not being considered true imports. If the total value of tin imported into the United States could be given, including all manufactured articles and alloys at the proportionate value of the tin therein contained, the amount would probably be over \$40,000,000 for the year 1909.

About one-fourth of the tin imported is used for the making of tin plates, sheet steel dipped in tin, and the bulk of the remainder goes into the alloys of which there are scores of varieties containing different proportions of tin with copper, zinc, lead, nickel, silver, and antimony.

Metallic tin is rarely found in nature and then never in commercial quantities. Fine grains of the metal sometimes occur in the gold ores of several localities, principally in Bolivia and in Siberia. There are a number of tin compounds, oxides, chlorides, and sulphides, but there is but one ore of any considerable importance in tin mining, and that is the binoxide of tin or stannic acid called tinstone or cassiterite. Tinstone is of various colors—brown, gray, yellow, red, or black—ordinarily due to the presence of peroxide of iron or manganese. In its pure state the ore is nearly colorless. It is a remarkably hard and heavy mineral, so hard that it will often strike

fire from flint, and of specific gravity 6.7, about equal in weight to antimony, and not much less than cast iron.

Tin mining bears many resemblances to gold mining. Like gold tin is found either in veins, running through older rock formations, or in alluvial deposits which represent the remains of the same veins washed down from the hills after the disintegration of the surrounding rock through the action of air and water and cold and heat. Unlike gold tin occurs in a compound, cassiterite, while gold is generally more or less pure. The tin mines of Cornwall in England and



Photograph by George W. Dean.

A TIN MINE IN THE ORURO DISTRICT OF BOLIVIA.

of Bolivia are mostly vein deposits, while those of the Malay Peninsula, the Dutch Islands, and elsewhere are alluvial.

The following figures give approximately the world's production of tin in 1908. Quantities are given in short tons (2,000 pounds), and the reduction from ore to tin ingots is made:

	Short tons.
Straits Settlements.....	67, 760
Bolivia.....	19, 040
Island of Banka.....	12, 880
Australia.....	6, 552
Cornwall.....	6, 048
Island of Billiton.....	2, 464
South Africa.....	1, 904
Total.....	116, 648

In addition some dozen other localities, including China, Italy, Burma, Tasmania, Siberia, and Alaska, contributed small quantities.

The export of cassiterite from Bolivia for the year 1908 was 32,932 metric tons (of 2,204 pounds); in 1909 the output was 35,566 metric tons, and in 1907 about 28,000. The ore runs about 60 per cent metallic tin.

From the earliest antiquity down to the latter part of the nineteenth century England was the source and almost the only source of the world's supply of tin. This is not to take into account the tin of the Bronze Age, for tin as such was not then known. In fact, tin was not recognized as a metal distinct from lead until about the fourth century of the Christian era. The reason for this was that the earliest metal workers never sought to reduce the metal from cassiterite, except in combination with another ore, generally copper.



Photograph by George W. Dean.

GROUP OF NATIVE BOLIVIAN TIN MINE WORKERS.

They therefore knew nothing of tin; they only knew the mineral tin stone or cassiterite and alloy bronze; so that it was late in the world's history before man first saw and knew the pure metal tin, although for untold centuries before he had made use of its alloy. Even then he confounded tin with lead, a metal first known ages after the first use of tin in the bronze. But for centuries before the pure metal had been extracted England furnished practically the whole of the world's supply. The British Islands were called the "Tin Isles," although tin came from only one locality thereof, the extreme south in Cornwall. In the nineteenth century the Malay Peninsular, the islands of Banka and Billiton in the East Indies and Australia became serious competitors in tin production, until before the close of the century first the Malay Peninsular and then the Island of Banka both passed Cornwall in tin

production. It was about this time that the tin veins of Bolivia, which had been more or less worked from the earliest Spanish days, began to enlarge their output to an extent that made them prime factors in the tin situation. At present Bolivia ranks second in production to the Straits Settlements of the Malay Peninsular as a producer of tin, and there is every reason to believe that with the development of railways and other means of communication it will take the first rank.

Tin has been found and mined to a limited degree in parts of North and South America other than Bolivia. The principal deposits in North America so far known are in Alaska at the extreme western point known as the Seward Peninsula, where Asia and America approach nearest each other. The ore was first discovered in this locality as a heavy and objectionable constituent accumulating in the sluice boxes of the placer gold miners. It was some time before the substance was recognized as cassiterite, but once known prospecting for tin began and the result has been the discovery of a considerable area of tin deposits. Both lode and placer ore have been found, but the known placer deposits are not extensive enough to afford much foundation for the belief that Alaska will be a serious contender for place as a producer of placer tin ore. As to the lode deposits, while not enough is yet known to prognosticate with any degree of certainty the future of Alaska tin, yet the prospect is more encouraging.

In the United States tin ore has been found in North and South Carolina, South Dakota, Washington, and Texas. In South Dakota in the northern Black Hills considerable mining work has been done and the outlook for tin production is favorable. The same can be said of Texas, where much development work has been done both in lode and placer tin deposits. The tin deposits of Washington are near the city of Spokane. Tin was first recognized in the Southern Appalachians, on the line between North and South Carolina, about 1875. The first discovery was of placer deposits, but subsequently lode tin was discovered. The placers of this region are of inconsiderable importance, but the lode tin deposits give every indication of being valuable and of considerable extent. These deposits are not vein deposits, but dikes of an igneous rock, pegmatite, which have solidified from an originally molten state. The placer deposits are derived from the breaking down of these dikes. The tin-bearing mineral is a variable constituent of the pegmatite, much of which carries no tin, while other portions contain a larger proportion of cassiterite and some masses are made up almost wholly of the tin mineral.

Tin has been found in Mexico and mined to a small extent. In Colombia there are known deposits which may prove of great value. In Peru there has been but little development, but a government commission sent out in 1907 makes a most favorable report as to the tin

prospects in the provinces of Huancane and Chucuito of the Department of Puno, adjoining Bolivia.

Tin ore has been located at several places in the Argentine Republic. At Tinogasta there are tin deposits which may prove of considerable value. In the Province of La Rioja, north of Chilecito, it is claimed that very valuable outcroppings have been discovered. In La Rioja, close to the Catamarca frontier, in the Cerro Mazan and Cerro Minas, the ore is being mined with most satisfactory results, although as yet in comparatively small quantities. The principal work done is in the Mazin ridge on the Descubridora vein. The cassiterite is in fine crystals, and while the run of the rough ore is not rich yet on account of its being easily broken down and assorted the mining promises rich results.



Photograph by George W. Dean.

WOMEN SORTING TIN ORE ON THE DUMPS.

Sorting is the first process in concentrating the ores. From the hard clay or ferruginous matrix the pure ore is picked by hand, and after being washed is then ready for grinding.

But it is in Bolivia that the great tin deposits have been found and worked, and Bolivia, so far, is the only locality of the new world whence tin in large commercial quantities is exported.

Before the coming of the Spanish conquistadores the nations of Peru and Bolivia, in the vicinity of Lake Titicaca, made use of tin as an alloy with copper to make bronze. Whether they knew tin as a distinct metal is a question, although the evidence points to the fact that they did. They no doubt found that the soft silver-colored metal in its pure state was unsuited for making utensils or weapons and but little use in making ornaments, owing to its want of wearing qualities. But they did know that when melted with copper it added strength, hardness, and fire-resisting qualities to the copper, the great deposits of which in the Corocoro region were known and

worked by them. Numerous articles of bronze from the ancient Inca civilization have been found in Peru and Bolivia, but the location of the ancient tin mines is very conjectural. Father ALONSO DE BARBA, curate of Potosí, in a work published in 1640, states that the deposits of Carabuco were worked during the Inca times. It is a curious fact that of the two native race stocks of the southern half of the Inca territory—the Quichuas and Aymaras—only the former seem to have known or used tin, since it is only in the coast valleys and other locations inhabited by the Quichua race that bronze objects are found. In the country of the Aymará race no such objects are ever found, yet it is here that the known tin deposits of the present time are located.

The chain of the Andes coming down from Peru divides into two great branches, between which lies the great plateau of Bolivia, over



Photograph by George W. Dean.

STONE QUIMBALATES USED BY THE NATIVES OF BOLIVIA FOR HAND CRUSHING OR GRINDING TIN ORE.

In nearly all the tin mines of Bolivia the stone crusher has been substituted by power mills.

11,000 feet high. The eastern range, the Cordillera Real, is the higher of the two and in its northern half contains the great mountains of Sorata, Illimani, Huayna Potosí, and others, and it is in the eastern range south of these great mountains that the tin deposits are found.

Most of the tin mines of Bolivia are yet in virgin ground—that is, they are new workings. These mines are located in four districts—La Paz in the north, Oruro in the center, Chorolque in the south, and Potosí in the east. The districts of Oruro and Chorolque are the largest producers. The city of Oruro is the center of the tin-mining industry, to which contribute not only the mines of the district, but also those of Chorolque and others of the north and south. Many of the mines of this neighborhood were originally silver mines and

yet produce silver in considerable quantities. The Socavon de la Virgen, San José, Huanuni, Negro Pabellón, Morococala, and Antiquera mines, now rich tin mines, were in the old Spanish colonial days rich silver mines, tin being held of such little value that it was rarely extracted. The San Jose mine is about 2 miles from Oruro. It is both a silver and a tin mine, but the tin is of the greater importance. The Antiquera mines are near Poopo, on the Antofagasta and Oruro Railway. Huanuni is said to contain the richest tin mines in the department of Oruro. These are located about 15 miles from the station of Machacamaca of the Antofagasta Railway. The Cerro de Pozacani, in which these mines are situated, arises to the height of about 10,000 feet—a rough cone in shape. It is laced by innumerable lodes and veins, some of which are worked on a large



Photographed by George W. Dean.

TIN ORE FROM THE HUAYRA MINE, POTOSI, BOLIVIA.

The piles of ore shown in the picture have been assorted by hand from the rough mine output. Most of this ore will be ground and concentrated by lixiviation, but the richest of it, which may be almost pure cassiterite, is sometimes exported in an untreated state.

scale. The Cataricagua vein produced in 1905 ore equivalent to 1,192 metric tons. The vein runs from 2 to 8 feet in width and is from 20 to 50 per cent cassiterite.

The Bolivian ores are ground and concentrated for the pure cassiterite. In this form is a sand called tin barilla; it is exported. A very considerable part of the valuable oxide is lost in treatment.

The mines of Negro Pabellón, Morococala, and Vilacollo are about 10 miles south of Huanuni, near Paria. The principal lode of Negro Pabellón is about 3 feet in width and is crossed by several smaller

veins, with here and there rich pockets of cassiterite. The barilla obtained from this ore is exceptionally rich, containing more than 70 per cent metallic tin. Concentrated Bolivian ores as a rule run about 60 per cent, or a little less, metallic tin. In the Morococala mine the vein is from 12 to 15 feet thick, of a good grade of ore.

Berenguela, in the province of Cochabamba, has an exceptionally high grade of ore. In colonial days Berenguela was a rich silver mine. The two ores are in distinct veins.

The tin mines of the northern field of Bolivia are in two groups—Huayna-Potosí and Milluni, north of La Paz, and the Inquisivi fields, on the extreme eastern edge of the Great Plateau. Included in the Inquisivi fields are the mines of Quimsa Cruces, Araca, and Santa Vela Cruz.



Photographed by George W. Dean.

BARS OF TIN FROM THE SANTA ROSA MINE, POTOSÍ.

The bulk of Bolivian tin is exported as concentrated ore (barilla); but in the Potosí District to save in weight, owing to the high cost of transportation to the coast, much of the ore is smelted. The smelting is done with charcoal in small blast furnaces. The loss is not less than 20 per cent of the tin contents of the barilla.

The first area is at the southeast end of Lake Titicaca, in the mountains some 13,000 feet above sea level. During colonial days these ruins were silver mines, but silver now in this locality is but little more than a tradition, for the only mining now carried on is tin mining. There are a great number of small mining properties in this locality, but the principal output comes from the French company, which owns the Carmen mine of the Huayna-Potosí and the Milluni mine.

The Quimsa Cruz or Tres Cruces district of Inquisivi is one of the most promising of the Bolivian fields. It is in the heart of the Cor-

dillera Real, which here rises over 17,000 feet above sea level. These fields are about equidistant from La Paz and Oruro, but much more accessible to the latter. The principal tin property in the district is the group of Monte Blanco mines, owned by a Chilean company. These mines are on the western slope of the Cerro Atarani. The quarters and mine office of the company are at an elevation of 14,800 feet and some of the lodes mined are 1,500 feet higher up the mountain slope. Among these lodes is the Santa Fé, which outcrops for about 1,000 feet, with an average width of from 6 to 9 feet. The ore runs about 12 per cent pure cassiterite. In pockets the mineral is found nearly pure. In the neighborhood of the Monte Blanco mines are the mines of Barosso Cota, Santa Rosa, La Florencia, Copacabanca, and others.

About 20 miles south of Monte Blanco is the Santa Vela Cruz field. The most important property in this field is that of the Concordia Tin Company, an English corporation. The location is not quite so high as Monte Blanco. Here the best mining methods are being adopted and the property will be without doubt a large producer, although not yet fully developed.

South of Santa Vela Cruz are the fields of Sayaquiri, a new field in which some prospecting has been done which promises large results, and Colquiri, formerly a silver field, but now developing into a tin-producing district.

The northern tin fields of Bolivia have in the past suffered much for lack of good transportation. This condition is being greatly improved with the recent railroad development in the country.



BARS OF TIN READY FOR SHIPMENT FROM BOLIVIA.

PAN AMERICAN RAILWAY^a

SINCE the meeting of the Third Conference at Rio de Janeiro in 1906 steady progress has been made in the realization of the project of uniting the three Americas by an International Railway line. The committee has continued its work in the way of explaining the scope and development of the plan, in affording the information which has been constantly sought, in answering inquiries of a specific nature, and in giving publicity to the measures of the various governments which offer inducements for capitalists to engage in railway construction in connection with the Pan American project.

The importance of the enterprise grows with the industrial and commercial progress of the various republics.

In 1890, when the first practical steps were taken toward realizing the aspiration for intercontinental railway communication by the First Conference, the total foreign commerce of the countries south of the United States from Mexico to the Straits of Magellan was approximately \$880,000,000. In 1909 this commerce was more than \$2,000,000,000. The increase has been a natural result of the railway construction which has helped to develop the resources of the different countries and thus to add to their commerce. Much of this railway construction has been either of trunk lines which form sections in the Pan American route or of lines which are branches of the general Pan American system and are feeders to it. The very great growth of trade in the last twenty years shows how traffic awaits railway facilities and how also it is created when they are provided. This increased commerce, which furnishes the basis for so much railway traffic, has not been limited to any section. All the republics which would be interconnected by the Pan American railway system have shared in it.

In keeping the public informed of the progress made after the Third Conference at Rio de Janeiro the committee had the benefit of a subsequent report by one of its members, Mr. CHARLES M. PEPPER. The results of his observations during a trip of a year's duration in South America were reported to the committee in May, 1908. This supplemented the report presented by Mr. PEPPER as special commissioner in 1904, and showed what had been accomplished in the intervening period. It was transmitted by the committee to the Secretary of State and was given wide circulation.

The committee undertakes to summarize the situation as it now exists and to indicate the prospects of future action in furtherance of the general plan. In obtaining information the committee has had the cooperation of the Department of State, of the International Bureau of American Republics, and of various diplomatic representatives of the different republics represented in Washington.

MEXICO.

Through railway communication now exists from the cities of the United States to the southern border of Mexico. The enlightened and progressive policy of the Mexican Government has secured this result, which itself is an important means of providing through railway lines from New York to the Panama Canal Zone. The distance from New York to the City of Mexico is 3,026 miles; thence to Gamboa on

^a The above report from the Permanent Pan American Railway Committee was presented to the Fourth International American Conference which met in Buenos Aires in July last. The members of the committee are Hon. Henry G. Davis, chairman; Andrew Carnegie, Esq., Charles M. Pepper, Esq., Gen. George W. Davis.

the Isthmus of Tehuantepec 559 miles, and thence to the Guatemalan border 284 miles, making a total distance of 3,869 miles from New York to the northern terminal of the Intercontinental or Pan American Railway.

CENTRAL AMERICA.

When there is direct railway communication from New York to the Panama Canal Zone the first great link of the Pan American Railway system will be completed. A review of the lines in operation and those under construction in the Republics of Central America shows that there is now lacking only a small section, less than 40 miles, in order to secure the through connection to the city of Guatemala. The building of this link has been undertaken by responsible capitalists who are interested in the existing railway systems of Central America. This section may be completed within a year. From Guatemala City to Zacapa a line is in operation and the group of capitalists who control the other lines are now engaged in surveys for the extension from Zacapa to the border of Salvador, and from there on through to Honduras. In Guatemala about 50 miles of this extension remain to be built, and in Salvador 285 miles. The section 49 miles long in Salvador from Santa Ana to the city of El Salvador is already built and will serve as a link in the main system. Construction has begun at La Union for the line to the city of Salvador. This work, it is expected, will be finished within eighteen months.

To cross Honduras a section of 72 miles will be necessary. This will naturally follow the completion of the line through Salvador. The railway under construction on the Atlantic Coast of Honduras ultimately will be extended to the Pacific. In Nicaragua a link of 38 miles will join the northern boundary with the existing line 105 miles long, which serves as a section on the Pan American route from Chinandega to Granada, and 68 miles must be constructed to reach the border of Costa Rica.

Costa Rica has 182 miles of railway in operation, part of which, the line from Guapiles to Port Limon, may serve as an Atlantic coast section of the Pan-American trunk when the gap is closed up to the eastern frontier of Nicaragua. From Port Limon to the Canal Zone is 226 miles. Of this a section 26 miles long is already in operation. This line follows the alternative route suggested by the Engineer Corps of the Intercontinental Survey in leaving the Pacific Coast and crossing to the Atlantic slope. Adopting this plan, this distance from the southern border of Mexico to the Canal Zone is 1,183 miles, of which 675 miles remain to be built. The route is a zig-zag one, but is in the nature of practical railway construction which looks to traffic and does not undertake to adhere strictly to air-line surveys. Should the Pacific coast route be followed the distance to be covered would be somewhat longer. Most of the sections already constructed, with the exception of the line in Costa Rica, would serve for this route. This plan would also include the construction of the line from Panama to David along the Pacific slope, 274 miles in length, to which the Government of the Republic of Panama is committed.

To sum up the railway situation in Central America without going into further details, 508 miles serving for Pan American or intercontinental purposes are in operation, 690 miles of feeders are already built, and 675 miles remain to be constructed in order to reach the Canal Zone by the shortest route, while 875 miles remain to be built by the longer route; that is to say, there are to-day in Central America 1,200 miles of railway of all kinds in operation and 675 miles yet to be built to join up and connect them with the trunk system reaching to Mexico and the United States.

Note should be made in connection with railway construction in Central America of the completion of the interoceanic lines. The line across Guatemala from San Jose on the Pacific to Puerto Berrios was completed in 1908. The through railway across Costa Rica is another important transverse line. These interoceanic or cross lines are in the nature of branches of the main trunk. The interoceanic lines and the main trunk serve as feeders to one another.

The total foreign commerce of Central America is now approximately \$50,000,000 a year. Every mile of railway that is completed adds to this commerce, and in opening up the resources of very rich regions insures a valuable traffic.

In connection with the Central American section of the Pan American system attention is drawn to the action of the Central American Peace Conference held at Washington in the latter part of 1907. This conference, manifesting the desire of the Governments represented to contribute their respective shares toward the realization of the great work of the Pan American Railway Committee, concluded a special convention. It was proposed that commissions be appointed which should report to the different Governments the most suitable measures for the construction of the respective sections, and that the effort should be made to secure the organization of one or more companies to construct the sections indicated; and, if that were impossible, to consolidate and bring to an agreement the different companies holding contracts or concessions. It was also proposed that the contracting companies should come to an agreement with the Governments of the United States and of Mexico and of Panama concerning everything relating to the transit of merchandise and passengers from border to border.

SOUTH AMERICA.

The South American continent presents a different situation from Mexico and Central America as to the construction of a through trunk line. The most difficult sections are those which are essential to the mineral development of the countries of the Andes. In Colombia, owing to various circumstances, not much progress has yet been made on the main trunk of the Pan American system, but some activity is reported in extending the line that now reaches from Buenaventura on the Pacific to Cali. The extension of this line north to Cartago and south to Popayan will form links in the Pan American system. The Colombian Government, however, has succeeded in supplementing its facilities of river navigation by railway connections. The line has been completed from the capital of Bogota to Girardot on the Magdalena River. Headway has been made with various sections paralleling the river and also with some of the extensions from the river ports to interior points. A valuable part of the vast natural resources of Colombia are tributary to the Pan American route and the opportunities for their exploitation should encourage the various projects for building sections of the line.

Ecuador shows a marked advance in Pan American construction. The railway connecting Quito, the capital, with Guayaquil, on the coast, furnishes 160 miles, the section between Quito and Alausi, of a direct link on the Pan American route. The Government has made arrangements which seem to assure at an early date the extension from Alausi south to Cuenca and there is also the probability of construction north from Quito to Ibarra within three years as provisionally contracted for by the Executive. This will be a 100-mile link. Contracts which have been made for several short coast lines will also add to the railway facilities of Ecuador. Work has begun on the railway from the Bay of Caraquez to Quito, which will be 182 miles in length and will serve as a feeder to the Pan American system. The plans of the Government for rail connection to the Amazon River region are also important.

Peru, by adhering steadily to its policy of making the Pan American trunk the basis of its railway development, has obtained important results. On the direct Pan American route the line is in operation from the mining center of the Cerro de Pasco, south to Huancayo, a distance of 145 miles, and the first section of the further extension toward Ayacucho is now under way. While there is an uncompleted section to Cuzco, comprising about 500 miles, it is gratifying to report that the sections between Cuzco and Lake Titicaca have been completed, and there is now a through line from Cuzco to Puno on the shore of the lake 237 miles in length. This is a direct link in the Pan American chain. In northern Peru provision has been made for extending the coast line from Chimbote to Recuay, a section of which will be an intercontinental link.

Reference should also be made to the favorable situation of the Peruvian projects for joining the river systems tributary to the Amazon on the eastern slope of the Andes by railway lines. The construction of such lines is encouraged by the building of the main trunk, which on its part will be served by them as feeders. Surveys which look to reaching Iquitos, on the Amazon, from Paita, on the Pacific, through the lowest depression in the Andes, are now being made, and there is an encouraging prospect that they will result in the early building of this line. The surveys for the line from Cerro de Pasco to the River Ucayali have also been completed, and that project is considered to be in a favorable position.

Ferry transportation from Puno across Lake Titicaca, 102 miles, may be regarded as a water link in the Pan American system. This means of transportation is already in operation. The Bolivian section of the Pan American Railway may be said to begin at the port of Guaqui, on the banks of Lake Titicaca. The Bolivian Government, by utilizing the financial resources at its command, has been able to forward its policy of railway construction very satisfactorily. The Pan American trunk line as a base from Lake Titicaca to the southern border has been the cardinal feature of this policy. In pursuance of it sections have been completed between Guaqui and Uyuni, a distance of 363 miles. This is a direct link in the main intercontinental location. There remain to be constructed only 177 miles from Uyuni to the southern border, and the plans of the Bolivian Government which are now being carried out insure the completion of this section at a reasonably early date. In the meantime other important railway building is going on in the way of branches, the most important of which is from the trunk to the Potosi mining region. This will secure a valuable traffic to the main system.

Bolivia is further interested in the construction of a direct line from the Pacific port of Arica to La Paz, which will form a junction with the Pan American main line. This work has been undertaken by the Chilean Government under a treaty arrangement with Bolivia. The contracts were let in 1909 and the work of construction is now going on.

Chile's interest in the Pan American Railway from its geographical location is the connection with the main trunk system by extensions and branch lines. The longitudinal railway, to which the Government is committed as a national policy, may be considered as a branch or extension along the intercontinental location, since it will be joined with the Pan American trunk line by any one of several railways across the Andes. The surveys for the longitudinal line have been completed, contracts have been let for various sections, and the work of construction has been begun on these sections. The longitudinal railway in time undoubtedly will reach from the northern border of Chile to the far south.

The opening of the Trans-Andine Railway tunnel to passenger and freight traffic is another result of Chile's railway policy. Since its completion the Chilean railways are joined with those of the Argentine Republic and are thus also connected with the southern part of the general Pan American system.

The progress of the Argentine Republic in railway construction has been so rapid that the Government was able to announce to the world two years ago that its contribution to the Pan American Railway plan was finished, since its lines were completed from Buenos Aires to Quiaca, on the southern border of Bolivia, a distance of 1,060 miles. The importance of the extension of the Argentine lines to future commerce is unquestioned. When the Bolivian links are completed it will mean a large increase of traffic in both directions.

Since the Argentine lines were prolonged north to the frontier of Bolivia and since the Bolivian links were completed to Uyuni, there now remains only the gap between Cuzco in Peru and Buenos Aires of 177 miles out of a total of 1,940 miles, allowing for the water transport across Lake Titicaca. If the railway is to be built along the shores of the lake this would require only 100 additional miles.

SUMMARY.

The general situation of the main trunk system as it stands to-day may be summed up as follows: The total length of the Pan American location from the Panama Canal Zone to Buenos Aires is 5,064 miles; rail and water line in operation, 2,067 miles; lines under construction or to be constructed, 2,997 miles.

The total distance from New York to Buenos Aires, following the actual construction in Mexico and adopting the alternative Pan-American survey in Central America by the shorter Atlantic coast route, is 10,116 miles. Of this 6,444 miles are in operation and 3,672 miles are either under construction or yet to be constructed to fill in the sections that are lacking. Eliminating the water links, it may be said that 3,700 miles of railway are requisite.

The present status of the Pan-American project as indicated above is shown in tabulated form as follows:

	Mileage.	
	Built.	To be built.
	Miles.	Miles.
New York to Mexico City.....	3,026	
Mexico City to northern border of Guatemala.....	843	
Northern border of Guatemala to Panama Canal Zone.....	508	675
Canal Zone to Puno on Lake Titicaca.....	542	2,820
Puno to Guayaquil, Bolivia (water-transport).....	102	
Guayaquil to Quilaca, Argentine Republic.....	363	177
Quilaca to Buenos Aires.....	1,060	
Built.....	6,444	3,672
To be built.....		6,444
Total Pan-American line, New York to Buenos Aires.....		3,672
		10,116

The intercontinental survey made under the direction of the commission created by the First Pan American Conference has for many years been the basis of the Pan-American Railway project. Its results were very beneficial and are still of much value. Some of the locations indicated have been followed in actual railway construction, while other sections which were not surveyed have been built. In view of the utility of the survey as a pioneer investigation, and of the information it afforded, a review of the situation in 1910, based on that survey by a competent engineer officer, is valuable. This is afforded in the table prepared by Gen. GEORGE W. DAVIS, member of the committee, from the records of the intercontinental survey, showing the distance between the two capitals, Washington and Buenos Aires. It follows the Pan-American location along the Pacific coast in Central America, which, as has been explained, makes the total distance somewhat longer. The whole situation is exhibited in a bird's-eye view as follows:

Pan American Railway situation, 1910.

[Compiled by Gen. GEORGE W. DAVIS.]

Subdivision.	Mileage.	
	Now constructed.	To be constructed.
	Miles.	Miles.
Washington to Mexican frontier.....	2,187.0	
Mexican frontier to Tehuantepec.....	1,298.0	
Tehuantepec to Guatemalan frontier.....	284.0	
Washington to Guatemalan frontier.....	3,769.0	

Pan American Railway situation, 1910—Continued.

	Mileage.	
	Now constructed.	To be constructed.
	Miles.	Miles.
Guatemalan frontier to Santa Maria.....	110.3	
Santa Maria to Hachadura.....		60.5
Hachadura to Acajutla.....		26.5
Acajutla to San Salvador.....	64.0	
San Salvador to San Vicente.....		42.2
San Vicente to San Minguel.....		62.0
San Minguel to Guascorin.....		36.1
Guascorin to Rio Negro.....		71.7
Rio Negro to Chinandega.....		38.0
Chinandega to Granada.....	103.0	
Granada to Pena Blanca.....		68.3
Pena Blanca to Liberia.....		52.5
Liberia to Rio Savegre.....		157.5
Rio Savegre to Golfito.....		150.0
Golfito to David.....		59.6
David to Panama.....		274.4
Total, Central America.....	277.3	1,099.3
Total, Washington to Panama.....	4,046.3	1,099.3
Panama to Yavisa.....		172.7
Yavisa to Rio Suelo.....		105.0
Rio Suelo to Rio Caramata.....		198.6
Rio Caramata to Cali.....		213.5
Cali to Carehi.....		332.0
Carehi to Quito.....		159.0
Quito to Alausi.....	160.0	
Alausi to Cuenca.....		87.0
Cuenca to Canchis.....		252.0
Canchis to Cerro del Pasco.....		779.0
Cerro del Pasco to Huancayo.....	145.0	
Huancayo to Cuzco.....		521.0
Total, Pan American survey, South America.....	305.0	2,819.8
Total, Washington to Cuzco.....	4,351.3	3,919.1
Cuzco to Puno.....	237.0	
Puno to Desaguadero.....		102.5
Desaguadero to Uyuni.....	363.0	
Uyuni to Quilaca.....		177.0
Quilaca to Tucuman.....	343.9	
Tucuman to Buenos Aires.....	717.7	
Other surveys South America.....	1,661.6	279.5
Total Washington to Buenos Aires.....	6,012.9	4,198.6

RÉSUMÉ.

	Miles.
Washington to Buenos Aires:	
Constructed.....	6,012.9
To be constructed.....	4,198.6
Total.....	10,211.5

BRANCH AND OTHER SYSTEMS.

In connection with the Pan-American Railway attention must also be given to collateral projects, some of which would serve as branch connections and some as independent systems. The Republic of Uruguay has contracted for upward of 500 miles and has given important concessions, and steps have been taken to insure complete railway communication with the Brazilian lines. The construction of the Pan-American Transcontinental, 376 miles, from the Brazilian border at San Luis to Colonia on the River Plate opposite Buenos Aires, is apparently certain. With the

completion of the lines in southern Brazil, which is also assured, and the junction of the railways in northern Brazil there will be in existence a transcontinental railway which will afford through railway communication from Pernambuco, on the Atlantic, via Rio de Janeiro, to Valparaiso on the Pacific. Another through connection will be obtained by gaining the northern extension from Montevideo with the Brazilian lines at Rivera. The proposed international bridge across the Cuareim River will join the Uruguayan railways with the Brazilian lines at the northwest extremity. The steps toward the realization of these plans are another evidence of the activity of railway construction in South America, all of which are based on the certainty of of traffic from the development of the resources of the regions which are to be given railway facilities.

Mention has been made of the early completion of the sections in southern Brazil which will join the Brazilian railway systems with those of Uruguay. This, however, is only one of the many railway enterprises which are progressing in Brazil. Undoubtedly the most important of these is the construction, under the direction of the Government, of the Madeira-Mamore line around the Falls of San Antonio. The value of this railway in opening up the commerce of a great section of the interior of South America, by means of the River Amazon and its tributaries, has been well understood, but to carry the project into effect has been extremely difficult. The actual construction now going on, however, makes it sure that the enterprise will be carried through, and the Committee is informed that within two years it is hoped to have the entire line, 300 miles in length, completed. This will be of very great benefit to the commerce, not only of the region directly served, but of the whole world.

The committee is informed that railway construction in Paraguay is also proceeding, so that that country will be given closer communication with the railway systems of Argentina and Uruguay. The extension of the existing line which runs from Asuncion to Pirapo, 153 miles to Encarnacion, on the River Parana, will close up an important section. The prolongation will be finished in two years. The building of a line to Posados is a further step in establishing railway intercommunication which is essential to the utilization of the resources of Paraguay. The contract authorized by the Argentine Government to extend existing lines so as to join Corrientes with Asuncion and thus afford through communication between Buenos Aires and the capital of Paraguay insures an important link in intercontinental railway connection.

The committee is informed that several important enterprises in Venezuela, which in the past have received favorable consideration, are now in a position to obtain the capital necessary to carry them out. The Orinoco River furnishes means of communication in the southern part of the Republic, but in the northern part railways are necessary in order to reach the ports of the coast. A large and profitable traffic awaits the construction of such railways.

In order to show the relation of the Pan American project to the various countries that will be benefited by it, the committee has had a map prepared, which is annexed to the report. This map shows the transportation routes by railway, river, and ocean. It is designed to present the general Pan American Railway location in its geographical relation to the different Republics and also to indicate the river navigation, which is of great importance in the commerce of South America. Railway and river traffic on that continent act as mutual feeders to each other.

The map has been prepared for the latest available sources, but the indication of boundaries is only tentative and is not to be understood as more than a general line to designate the relative position of the different countries.

CONCLUSION.

In previous reports the committee has taken occasion to recall the declaration of distinguished statesmen of the United States favoring the Pan American project. Among those who so declared themselves were JAMES G. BLAINE, Presidents HARRISON and ROOSEVELT, and Secretary ROOT. It is gratifying to add to these expressions

other declarations. President TAFT, in a letter to the chairman under date of January 13, 1910, wrote as follows:

"I am very much in favor of the construction of the Pan American Railway, and hope for practical results from the conference soon to be held at Buenos Aires in regard to the matter."

Secretary KNOX also wrote the chairman:

"I am in hearty sympathy with the Pan American project, and will be glad to give it such assistance as I can. Each step toward its realization will not only directly increase trade between adjacent American countries, but will also increase mutual acquaintance and knowledge and the interweaving of interests, which is the surest foundation of commercial development in each country and of good international understanding among them all."

The chairman of your committee, since the first Pan American conference in 1889, has been a member of the several committees on the Pan American Railway resulting therefrom and has followed closely the prospects of the project. In his advocacy of the subject he has discussed the matter many times with men of more or less financial ability and railroad experience. He is glad to say that there is a growing interest and somewhat positive disposition on the part of men of prominence in the business world to more seriously consider the enterprise not only from the standpoint of a great public work, but from the belief that it presents an opportunity for a reasonably safe and profitable investment.

The indications now are that the time is drawing near when men of large affairs, capable of financing such a project, will undertake the building to completion of the Pan American Railway. Within four years it is promised that the oceans will be joined at Panama. If the present favorable indications have not been misjudged, an all-rail route should join Panama with Mexico and Washington by 1915, and with Buenos Aires, Santiago, and Rio de Janeiro a few years later.

Respectfully submitted.



LATIN AMERICA AND THE QUILL CLUB " " "

ONE of the interesting and important social organizations of New York City is the famous "Quill Club," whose membership, as its name indicates, is made up largely of the editors and writers of the principal magazines, weekly publications, and newspapers of the metropolis. This club has monthly meetings through the fall and winter, when it invites men of prominence in various walks of life to address its members. At its meeting November 15, the guests of honor were Señor Don FRANCISCO LEÓN DE LA BARRA, Ambassador of Mexico to the United States; Señor Don FELIPE PARDO, Minister of Peru to the United States; Director General BARRETT, of the Pan American Union; and Prof. WILLIAM R. SHEPHERD, Secretary of the United States delegation to the Pan American Conference in Buenos Aires. The presiding officer was Mr. SILAS MCBEE, the well-known editor of "The Churchman," one of the principal semireligious publications of the United States. The principal addresses were delivered by the Mexican Ambassador and the Peruvian Minister, but introductory and closing remarks were made by Director General BARRETT and Professor SHEPHERD. In view of the demands on the space of the BULLETIN, it is to be regretted that these two speeches can not be quoted in full, but a summary of their principal points is given below:

Ambassador DE LA BARRA paid a high tribute to the power and influence of the press as represented in the Quill Club, referring to the ability of the press to be either an "efficient aid" or "redoubtable opponent" to the influence of good. He continued:

You wield, gentlemen, a powerful weapon. Fortunately, the "magazine" is generally in your country a sound force which helps in the progress of this nation, so great a progress that it may be called marvelous. These tendencies toward good are shown in the beautiful function where we are gathered and to which you have invited, as in former years, to break bread with you several representatives of nations friendly to your own. The cordial words of your President, who so worthily holds this high post, have served also to interpret eloquently the generous spirit of American hospitality here presiding. This is a token of your love for good, because your invitation to be here shows that you well know the weight that public opinion carries in the development of the relations between people.

In former times two nations could be plunged into the horrors of war by the simple caprice of a sovereign. To-day such a thing would be impossible; the people impose their will and within proper bounds they are the arbiters of their destinies. And you, gentlemen, you who control this great moral force, in enlightening public opinion, and in directing it through the proper channels, even in those cases where it is driven

by passion or wrath, you are the active and invaluable colaborers in the work of modern diplomacy, sound and good, that diplomacy which is founded on truth and justice, a diplomacy which zealously defends the sacred interests of the fatherland and respects the rights of other nations, be they strong or weak.

He then took occasion to speak of the policy of good will, friendship, and the spirit of justice and amity displayed by the Governments of Mexico and the United States during the unhappy events which recently occurred on the Texan frontier.

This policy, he stated, is not merely based on imagination and sentiment.

The encouragement of material as well as of social and moral interests is not foreign to it nor can it be so. Look upon our own America, where the policy of love and harmony has produced blessed fruits, drawing closer together peoples that they may know and love one another instead of fiercely warring. How often have we not heard in our continent voices raised, not in quarrel "*pro domo sua*," as was their right, but "*pro domo amicii*" for the sister country weighed down by misfortune and danger,

Referring to the direct influence which journalism may have in the relations between nations, the Ambassador stated that during the celebration of the Centennial of the Declaration of Independence of Mexico many distinguished American newspaper men visited the country. They returned to their respective homes agreeably surprised at having found a free, hard-working, patriotic, and progressive people. These newspaper men, he said, saw the development of mining which has gained for Mexico the first rank among the producers of silver in the world and the third place as producers of copper. They saw the gold production increasing to a most extraordinary degree. Nor could they help remarking on the extensive irrigation works throughout the land which were increasing the products of agriculture. The banks, too, operating on a sound financial basis and in perfect working order—all evidences of the onward march of the Mexican Government. They saw the careful administration of public moneys, the zeal with which public instruction is encouraged, thus securing the industrial development of Mexico, and finally they felt the throbbing of the public heart filled with lofty and noble sentiments of national solidarity.

And if the distinguished representatives of American journalism saw and felt all this in my country, the people of the United States on reading these impressions will know better and appreciate more highly their sister of the South. In this work of mutual knowledge between the countries of our continent that very distinguished friend of Latin America, Mr. JOHN BARRETT, has faithfully labored. I thank him most heartily and wish to express my appreciation for the spirit which inspires him in the great work of love, in which we should all collaborate.

In conclusion the Ambassador said:

Gentlemen, you must continue to be efficient colaborers in modern diplomacy which preserves the good traditions, ever mindful of the evolution of the world, so that we men of good will to whom peace was offered, gathered together under the shadow

of the white flag whose motto is "Peace based on justice," may see the universal triumph of that noble international policy which has already gained so many partial victories. This we shall obtain because, fortunately, though as HOBBS says, "Man is wolf to man," yet at his side stands the man who loves, who hopes, and who labors for the well-being of his brothers.

Minister PARDO stated that there could be no greater proof of the marked tendency to strengthen the relations with Latin America, as shown by public opinion in the United States, than the fact that a representative of Peru had been called upon to speak at this banquet. He did not believe that this could have happened until within the last few years, as Latin-America was a subject which did not appeal generally to the American people on account of the ignorance existing heretofore in regard to these countries. To-day professors, distinguished writers, and commercial men travel through the Latin-American countries, come in contact with their social classes, and return to this country with an opinion far more favorable than they had at first.

This great change the Minister attributed to several factors, the principal one being our commercial interests, the strongest international bond which can exist. When the United States began to develop her export trade and enter the commercial world in competition with the old industrial countries of Europe its statesmen foresaw the necessity of preparing markets for this growing export trade, and accordingly devoted their best energies to cultivating and binding closer together their international relations, particularly with Latin-American Republics. In their efforts they were assisted by a reciprocal interest of these countries arising from a desire to render more cordial and firmer the bonds of union among the republics of the continent.

The Minister further remarked:

Two events that history will probably record as landmarks in the modern evolution of Pan-American relations are Secretary Root's visit to South America and the trip made by the powerful American fleet to our coasts. Mr. ROOT made known the new Pan-American policy, dispelled existing doubts, pointed out new ideals, and gained the confidence of all. The American squadron taught the United States, by means of letters and postal cards sent by 20,000 members of the crew from each port of call to their several families and friends, and also through articles written by the press correspondents on board to their newspapers, the geography, the customs, the resources, and in general the characteristics of the South American Republics, thus automatically educating the people of this country in matters pertaining to South America, and your people proudly followed on the map the route of the great squadron around the world. This has been the most colossal objective lesson in geography that could have been taught to ninety-five millions of people.

The closer relations thus established with the South American Republics has steadily grown and is becoming more marked as the increasing acquaintance spreads itself and the mutual interests are comprehended.

The Minister referred to the confidence in the Pan American policy and its results in favor of peace, welfare, and prosperity as an established fact. The influence which stronger nations are exerting for peace was evidenced by the mediations of the United States, Argentina, and Brazil during the conflicts between Peru and Ecuador and prevented a war which seemed imminent.

Speaking of the commercial relations between the United States and the southern Republics, he stated that these interests have not kept pace with the development in friendship, solidarity, and mutual confidence. This might be explained in several ways. Until lately the United States exported mainly natural products similar to those exported by the Latin-American countries, while it imported from Europe manufactured products just as the southern Republics did. The situation, however, has been modified in the last few years. The United States exports to-day manufactured articles, while some of the southern Republics endeavor to produce the manufactured articles they need. On the other hand, Latin-American countries prefer to import from Europe articles not produced at home. This preference is due to the fact that the enormous amount of capital required for the development of Latin America comes mainly from Europe, and as a result reciprocal commercial treaties are effected between Latin-American countries and these investing nations. He pointed out a similar relationship existing between the United States, Cuba, and Porto Rico, due to the investment of American capital and the favorable tariff schedules.

Minister PARDO then predicted a rapid development for his country with the opening of the Panama Canal, and spoke at some length on the opportunities offered American capital in Peru. The country is rich in natural resources awaiting exploitation and development; the climatic conditions are favorable and healthful; there exist immense zones of lands which, made fertile through irrigation, are adaptable to raising products and fruits of the Tropics, as well as to the development of agricultural areas and cattle raising. The plateaus, too, abound in mines of all kinds and vast forests or precious woods and rubber trees.

He concluded his remarks with assurances of stability of his Government and safety to foreign investment and enterprise, and presented his sincere wishes for a continuance of the spirit of Pan Americanism which is so strongly uniting the American Republics.

BOOK NOTES

"Compendium of the Laws of Mexico, Officially Authorized by the Mexican Government. Containing the Federal Constitution, with all Amendments, and a Thorough Abridgement of all Codes and Special Laws of Importance to Foreigners Concerned with Business in the Republic * * *." By JOSEPH WHELESS, * * * St. Louis. The F. H. Thomas Law Book Company, 1910. lxxxv, 1,048 p. (2 v., continuous paging). Size 6 by 8 inches. Price \$7.50.

In view of the evergrowing financial interests of English-speaking peoples in the Republic of Mexico the necessity for an accurate translation and interpretation of the codes of that country became imperative. Therefore the publication of this "Compendium" is opportune. The works dealing with this important subject that have heretofore appeared have been in a measure incomplete and imperfect, while the two volumes under consideration seem to fulfill—

the practical purpose of providing a full and accurate knowledge of Mexican law to the great number of individuals and companies having business interests in Mexico affected by these laws.

The author has proceeded with his work in a painstaking and conscientious manner, and the result of his labors is a concise collation of the provisions of all the laws of Mexico. The accuracy of translation, always a matter of the first importance in a work of this character, is guaranteed by the author in his preface, and he assumes personal responsibility for the correctness and faithfulness of the English version with the original text.

The system of jurisprudence of Mexico, a result of the revision of the Spanish Civil Code, which in turn was based upon ancient Roman law, on first investigation seems complicated, but further study, however, reveals the fact that the different codes of law are based on fundamental principles of equity and justice and are simple in application. While the 27 free and sovereign States of Mexico have full legal power of legislation in theory, in practice they all copy word for word the legislative enactments of the Central Government, so as a matter of fact, instead of the conflict of legal authority, which is found in other nations made up of different States claiming sovereign rights, we have a uniform system of laws under a strong central federal power.

The "Compendium," besides including a comprehensive synopsis of the codes and laws of Mexico, contains special chapters detailing the rights and duties of foreign and domestic corporations and a book of forms that is practicable. It is to be regretted that the consideration of laws relating to railroads, banks, and insurance companies, and the code of commercial maritime law have been omitted.

"Brazil and Her People of To-day. An Account of * * * the Brazilians and the Development and Resources of Their Country." By NEVIN O. WINTER. Boston. L. C. Page & Co., 1910. x, 388 p. Maps. Illus. Size, 6 by 8 inches. Price, \$3.

The author, who has given us two other books treating of travel in tropical countries, records his impressions of social conditions in the largest American country, gained from an extensive trip throughout its territory.

Brazil may be likened to a vast treasure house in which are stored the unexploited resources of the earth, awaiting the advent of future generations. Its territory is a sort of trust created by nature for the benefit of unborn millions. In support of our simile, we cite the story of one SCHMIDT, who caters to the world's coffee trade:

At the station were waiting carriages from the hospitable "Monte Alegre" *fazenda*, the residence of Col. FRANCISCO SCHMIDT who is known as the "coffee king." This man came to Brazil as a poor emigrant

boy a half century ago, and hoed coffee trees for other *fazendeiros*, and on lands which he now owns. Seated on the broad veranda of "Monte Alegre" one could see avenues of coffee trees stretching out over the hills—and good coffee lands are always hilly—until they were lost in the horizon. Although it was not possible to see, yet one knew that they continued in the same unbroken rows down the other slope. I rode in a carriage with the Colonel for hours through a continuous succession of coffee trees, during the three days that I was his guest, with no end in sight. When you consider that there are from 250 to 300 trees to each acre, you will readily realize that the number of trees soon runs into the thousands, then into the tens of thousands, and finally into the millions. So do not be surprised when I tell you that this coffee king has already growing upon his various *fazendas* the almost incredible number of 8,000,000 coffee trees. I did not see all of them, but I saw so many that numbers lost their meaning, and I could only think in millions.

Twenty-three million pounds of coffee were marketed by this man in one year. This is enough to give every man, woman, and child in the United States and Canada a cup of coffee for breakfast for one week. He has 20 railroad stations on his 32 different *fazendas*. He has 20 machines run by water or steam power for cleaning coffee, and acres upon acres of drying yards, all of which are scenes of activity in the harvesting season. Nearly a thousand horses are employed in the work of the plantations, besides more than that number of mules and oxen. There is also a fully equipped sugar mill, which turns out thousands of pounds of refined sugar each year. In fact, the Colonel told me, as we were seated at the great dining table that would seat 40 persons, and which was spread with the good things of life: "Everything on the table, except the flour used in making the bread, was raised on this plantation."

The Colonel reminded me of the feudal lords of old, for the 8,000 people who live on his plantations not only depend on him for labor, but look up to him and tip their hats respectfully whenever they see him. The work of taking care of the coffee trees is all let out to families at so much a thousand trees per year, and a family will take care of 5,000 trees. The price paid is from \$25 to \$30 per thousand per year for hoeing and cleaning the fields, and they are paid in addition to this for picking the coffee at established rates. Furthermore, they are permitted to plant corn and beans in between the coffee rows, which gives them an extra profit. Day laborers are paid at the rate of \$0.90 to \$1 for each day's work.

Everything about this plantation is conducted in a systematic manner, and in that is the secret of Colonel SCHMIDT's success. The 32 farms are all connected with his home by telephone, for which more than 80 miles of telephone wire have been strung. Everything, including plumbing supplies, is kept in systematic order and the owner himself knows where each article may be found. Machinery when not in use is carefully stored under shelter to protect it from rust. A half dozen blacksmiths, as many woodworkers, harness workers, shoemakers, etc., are kept on the plantation, and even a private tailor is employed at the house. A dozen or more general stores are operated for supplying the wants of the employees. With this and much more detail this great plantation is run on modern business methods, with as perfect a system of book-keeping as the average business man employs. From these books can be told at a glance the exact cost of each plantation for each year, its production, and the net profit to the owner. And, above all, the Colonel is a charming host, and finds time to make it interesting for those like myself who visit him where he is king.

This pen picture of the rewards of system and saving in Brazil speaks strongly for the success of future prototypes of Col. FRANCISCO SCHMIDT.

Railroads push through these unexploited southern lands with the same effect as irrigating ditches in the desert. Through their medium virgin soil is brought to fruitful reproduction, responding to cultivation with wonderful fecundity. As the building of railroads seems almost a passion with the Brazilian nation, we foresee the day when the limit of navigation on the Tapajos will be joined with the headwaters of the Paraguay by a path of steel, and when we can go by rail from Rio to Antofagasta. Our wish is that those who carry through these Titanic schemes may reap the reward of the Sao Paulo stockholders.

I have reserved for the last one of the most important, as well as one of the most interesting, railroads in the world—the Sao Paulo Railway. This line is important, not from the amount of mileage, for it only runs from the port of Santos to Jundiaby, a distance of about 100 miles, but because of the amount of freight shipped over it. It is the only railroad in the State of Sao Paulo running to the coast, and all the products of that State are shipped over it. Two-thirds or more of the world's coffee is produced in Brazil and of this three-fourths is shipped from this one port, and all of it hauled over this one road. As high as 13,000,000 sacks of coffee, weighing 60 kilograms each, have been shipped from this port in a single year. It has a monopoly of 31 kilometers on each side of the track. * * *

The Sao Paulo Railway originally held a 7 per cent guarantee from the Government, but this was long ago released. Its earnings have been so great in some years that the company did not know what to do with the surplus. It was allowed to pay only 12 per cent to the stockholders, and the balance must either be paid to the State or the rates reduced. Unwilling to do either, this company has built fine stations where there are not more than a score of people, and has expended money in every way to keep down the net earnings under that sum. For 6 miles, soon after leaving Santos, the road climbs the Serra do Mar by means of cables. This is divided into four sections, each with its own power station. The trains are run in sections of three and four cars each, with an engine on each section. One section goes up as another comes

down on each cable. A few years ago the traffic became so congested that it was necessary to construct a second roadway over the Serra, the one roadbed being considerably lower than the other. The mountain side is paved in some places to prevent landslides. Water courses and gullies of masonry and cement have been constructed everywhere to carry away the rain, which sometimes falls here with almost the force of a cloudburst. The road is well ballasted with a crushed stone found in the hills which is as hard as granite. The Luz Station in the city of Sao Paulo, belonging to this company, is by far the finest station in South America, and one of the finest in the world. The railroad is owned by an English company, and the engines and equipment are distinctly English, and the entire track is built with the care and precision of an English railroad, with an overhead bridge or tunnel at each station to pass from the station at one side of the track to that on the other. The road has only one little branch in addition to the main line.

Mr. WINTER's book gives a good general idea of things Brazilian.

"Argentina: Past and Present." By W. H. KOEBEL * * * London, KEGAN PAUL, TRENCH, TRUBNER & Co., 1910. xxiii, 455 p. Plates. Map. Size, 6½ by 10 inches. Price, 12 shillings 6 pence.

The author tells the story of this young Republic in a most agreeable manner, treating the themes of his story, civic and industrial developments, and collateral interests in what is known as popular style that makes for easy reading and leaves one with a most agreeable impression of Argentina.

We take exception to his derivation of the word "buccaneer."

The book presents an attractive picture of Argentine affairs and we can recommend it to all interested in that wonderful country. Anyone unacquainted with the extraordinary commercial advancement that has taken place in Argentina within a decade might think that Mr. KOEBEL sees the opportunities of the country through rose-colored glasses. But the facts justify his statements and there is every hope of success for the aspirant who enters this field equipped with "commercial capability, a knowledge of Spanish, and a sum sufficient to support him for six months after the date of his arrival." On this latter point it is well to bear in mind the fact that Argentina is not a "cheap" country.

"Isle of Pines." By IRENE A. WRIGHT. Havana, Wark & Wright, 1910. 108 p. Illus. 8°. Price, 25 cents.

The story of the Isle of Pines is replete with romance, and Evangelista, as COLUMBUS called this island, has been the scene of stirring events from the time of the buccaneers to the period of peaceful conquest by American invasion.

Perhaps the stage of ROBERT LOUIS STEVENSON's "Treasure Island," the agricultural activities of the present inhabitants have at last brought from the soil a wealth of golden fruit that augurs the island indeed a place of hidden treasure. That the Americans resident in the Isle of Pines have risen superior to the disappointments incident to a realization of the misrepresentations of the land sharks who first exploited this favored spot, speaks well for the character of the pioneer settler, and shows that they are a body of citizens doomed to the rôle of involuntary expatriots of which the United States might well be proud.

It is not the purpose here to discuss the conclusions of Senate Document 311, but in view of existing conditions it is to be hoped that a satisfactory solution of the status of the island will be reached. The claims of the owners of the land are not without justice.

Perhaps the greatest blessing of the Isle of Pines is its winter climate. There is no doubt but that the right kind of hotel accommodations would make it one of the most interesting and delightful places in which to spend the colder months.

The author goes into the island's economic development very thoroughly, incidentally referring to a curious fact: The writer was interested to observe how every "special agent" who has reported on the Isle of Pines—TIRRY, LANIER, LABADIA, etc., right down to G. R. FORTESCUE, S. A. A. F., from 1797 to 1907-8—has agreed with all the rest in marveling, as did FRANCO, the first of them, that the people of the

Isle of Pines, having a suitable soil in their dooryards, have invariably failed to get their own living from it. Fortunately, as the Isle of Pines advances, this particular condition is changing with all others for the better, and the author noticed most especially how much more garden truck, fodder, pasture, etc., is in evidence now than was to be seen a year or two years ago. The isle bids fair to break her record, as it appears through all the past centuries, to become; that is, practically self-supporting, to feed herself in large part.

The last special agent to visit the isle persuaded the settlers to take some of their time from the cultivation of the citrus groves, which promised future profits, and turn their attention to the raising of potatoes in order to provide for present needs, the growing of this tuber having never before been undertaken on the island.

This book shows that there can be no question of the prosperous future in store for the Isle of Pines, a prosperity that will come like magic with the improvement of communication with the United States. Such improvement can be expected upon the completion of good docking and harbor facilities in Siguenea Bay.

The author gives us an excellent idea of the past and present conditions of the "Isla de Pinos."

Diccionario Chorographico, Historico e Estatistico de Pernambuco (Chorographical, Historical, and Statistical Dictionary of Pernambuco), by SEBASTIÃO DE VASCONCELLOS GALVÃO. 1908. Imprensa Nacional, Rio de Janeiro.

As indicated by the title, this work gives a historical and topographical description of the principal districts, cities, and towns of the State of Pernambuco, together with a great wealth of information in regard to their population, government, schools, chief productions, means of communications, etc. The book is illustrated with a number of portraits and views.

"Explorations in the Department of Peten, Guatemala, and Adjacent Region. **Motul de San José; Chitzen-Itza. Reports * * ***" By THEOBERT MALER. Cambridge, Peabody Museum, 1910. 131-170 p. Plates. Size, 11 by 14½ inches. (Being vol. 4, No. 3, of the "Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University.")

In looking over the record of travel made by this distinguished antiquarian in this most difficult bit of country, one realizes the fascination of archaeological exploration and the search for ethnological data. Undoubtedly Professor MALER, whose work treating of Chitzen-Itza is a standard on Mayan civilization, pursued his investigations in Tasyal with the hope of discovering a key that might lead to the meaning of Mayan hieroglyphics. It is to be regretted that through force of circumstances his indefatigable efforts were unrewarded in this particular instance, but there is no doubt but that the author has gathered much welcome material that will add new light to the different phases of Mayan history.

"**Memorias do Instituto Oswaldo Cruz.**" Rio de Janeiro, Manguinhos, 1910. 146 p. Plates. Size, 7 by 9½ inches.

This is the second volume issued by the hygienic laboratory of the Rio Board of Health, known as the Oswaldo Cruz Institute, and deals with scientific subjects having special reference to public health matters. DR. MAX HARTMANN, of the Berlin Institute for the study of infectious diseases, contributes a notable paper on the intestinal ameba, giving the results of experiments made with the ameba obtained from a tortoise (*Testudo graeca*), which he considers a new species, and names *entameba testudinis*. Other papers published in this issue are: "A new vaccine for symptomatic carbuncle;" "Contribution towards the classification of Brazilian Entozoa;" "Cases of infection by the *Paratyphus bacillus* and *Enteritidis bacillus*;" "Investigation of the *Polytomella agilis*;" "Dipterological notes;" "Studies of pests;" "Study of the germination of spores;" "Formation of the race of hematozoa of malaria which resists quinine;" "Some remarks on tuberculous infection and its respective virus."

WHAT IS IN THE MAGAZINES

"The Land of the Incas," by Sir CLEMENTS R. MARKHAM, K. C. B., F. R. S., is the leading article in the October number of "*The Geographical Journal*," London.

The author of this paper has been identified with questions of South American cartography for some fifty years, and science has to thank him for much valuable data acquired during explorations undertaken many years ago in the region which he calls "the land of the Incas." As president of the Royal Geographical Society he encouraged the completing of accurate maps of the entire earth's surface impartially, although it may be surmised that he watched with keen interest the advance in the knowledge of geography of those countries where he had personally braved the perils of exploration in the name of science. The recently completed map of the Cordillera and Montaña sections of Peru and Bolivia is the result of the inspiration of his work. He is well called the father of this map, and as one thoroughly conversant with his subject what he writes in description of the little-known region bears repetition.

We turn first to the northwestern division, and to enter it we must cross the formidable Maritime Cordillera, not in a railway train, not even in the best time for traveling. By lovers of grand and imposing scenery the Cordillera should be crossed in the worst time—in the height of the rainy season. The coast of Peru presents a study of extraordinary geographical interest, but there is no time to dwell upon that now. We leave it by one of the passes, and at first the scenery is grand, but desolate and forbidding.

As soon, however, as the zone of rains is reached there is a complete change. We ascend into the lofty region known as the Puna. The declivitous mountain slopes are covered with tufts of coarse grass. On one hand, there is a precipice the dark side of which is lost in clouds far below and the roar of an unseen torrent is distinctly heard. Still ascending, we come to the heights frequented by vicuñas—graceful, beautiful animals, of a light-fawn color, with fleeces like silk, long slender necks, and small camel-like heads. There, too, are the little uiseachas, with short fore legs and bushy tails, and the loudly screaming lecco lecco, a species of plover. The snow lies on the back of the vicuñas. It is the Riti-suyu, or region of snow. Here, on the water parting, the sky is charged with mist, and the snow is falling heavily, while the roaring waters make a deafening noise. Some are flowing to the Pacific, others are rushing down to where—

Swelled by a thousand streams,
Impetuous hurled from all the roaring Andes,
Huge descends the mighty Orellana.

But night approaches as we leave the Pacific watershed and come upon the sources of the Amazonian streams. Descending, we enter a narrow defile with perpendicular cliffs on either side. Here an overhanging rock is used as a cave to shelter travelers, but not in the rainy season, for it is filled with snow, and water pours from icicles on the roof. The rainy-season traveler must pass the night standing with his head on the mule saddle. Far below thunder peals loudly, with flashes of forked lightning. As morning dawns the snow ceases, the heavy mists gather themselves together and roll down the ravines. A precipitous descent over slippery rocks leads down to grassy plains and rapid rivers, with glorious views of the snowy mountains. Here are gorges with precipitous sides and torrents dashing over masses of rock several hundreds of feet below. A few poles are thrown across to form a bridge. Beautiful cascades course down the sides of the precipices, and in most of the passes there are alpine lakes contrasting their brilliant azure with the snowy slopes.

All this is a splendid welcome to the land of the Incas.

In studying this field one must bear in mind the existence of two civilizations in prehistoric Peru—the Incan, which existed at the time of Spanish discovery and of which we have considerable ethnological data, and the pre-Incan period, when the Chucama Valley was inhabited by the Chimus, contemporaries of the Pyramid peoples perhaps, an artistic and highly civilized race of which we know almost nothing. In writing of the character of the territory inhabited by these people, the author offers a startling theory in order to reconcile known differences in climatic conditions.

Some miles from the southern shores of Lake Titicaca, once actually on the shore, there are the ruins of a great city, now called Tiahuanacu. In the time of the Incas it was the same ruin as it is now, its

origin and history absolutely unknown, and myths were invented to account for the numerous stone statues. The ruins show very advanced proficiency in the masonic art, and there are monoliths which have been conveyed from great distances. The size of these cut and carved stones is unequaled in any other part of the world except Egypt.

There must necessarily have been a very large population and an immense food supply. The question how a region where corn will not ripen can have been selected as a site for a great city is a problem which seems well worthy of study.

The site is over 12,000 feet above the sea. Cuzco is at an elevation of 11,000 feet. If the Tiahuanacu City flourished when the Andes were still 1,000 feet lower, the problem would be solved. The Cordilleras of the Andes, if the grandest and most important mountains in the world from their vast extent and productiveness, are the most modern. The conclusion of Doctor REICHE is that they had no existence even in so late a geological period as the Cretaceous, and there seems to be evidence that the upheaval has been comparatively rapid. DARWIN tells us that in the neighborhood of Valparaiso there has been a recent rise of 1,200 feet. He also found remains, consisting of maize cobs and cotton twine, on the summit of the island of San Lorenzo, proving that the land has risen 80 feet within a time when human inhabitants were cultivating the land. This calls to mind the Huarochiri myth, which declares that—

When Viracocha was here our land was Yunca.

That is to say, that their tradition tells them that, in the golden age, the Huarochiri hills, at no great distance from DARWIN's point of observation at San Lorenzo, were formerly valleys like those on the coast called Yunca. Again, there are numerous skeletons of gigantic ant-eaters in the deserts of Tarapaca. I have presented two to the British Museum. No forests to support them could have existed in Tarapaca while the Andes were at anything like their present height.

Although the observations of DARWIN, Sir MARTIN CONWAY, and BANDELIER seem to support this supposition, still we are inclined to hold with Mr. C. REGINALD ENOCK, that there have been gradual changes of climate rather than gradual changes of elevation since the time of the prehistoric stone structures and their probable Asiatic originators. Laymen are too prone to insinuate that, given a theory, scientists will find facts to support the same, so all data in affirmation of startling hypotheses of this character should be subject to vigorous scrutiny.

Sir CLEMENTS MARKHAM's paper is a most interesting one and will undoubtedly lead others to investigate this fascinating field of study.

"**The First Transandine Railway,**" by W. S. BARCLAY, a further discussion of this triumph in railroad construction, appears in the November number of the same magazine. This subject has been covered so often in our columns that we only quote certain sections of the article that give some additional information of interest.

On a clear day the view over the plains seen from the higher slopes, either on the Chilean or Argentine side is most impressive. It is as though the skeleton of the continent were laid before one, stripped of disguise, giving the key to its inmost structure. Some sense of its vast intimacy comes home to every traveler, even as it did to CHARLES DARWIN when he made, in the early thirties, the journey across the Andes from Valparaiso to Mendoza and back. Unfortunately, certain of the deductions DARWIN drew as he viewed the outstretched Argentine plains were based on insufficient geographical data. He rightly confirmed the impression, confirmed by his travels in Patagonia, of an immense line of raised sea beaches, stretching from the Straits of Magellan northward to the hills of Catamarca. But he imagined the banks of the Santa Cruz River in Patagonia had yielded him a true cross section of the continent at that point. The expedition directed by Capt. FITZROY, from H. M. S. *Beagle* up the Santa Cruz, failed as we now know, to reach that intricate chain of rivers and glacial lakes which lie in the longitudinal valleys just east of the Patagonian Andes. To any one who knows their deceitful levels, it is no wonder that DARWIN should have imagined the Patagonian table-lands ran right up to the snows of the southern range, in the same way that the sterile plains inclosing the Mendoza River rise toward Uspallata. Thus, arguing from analogy in his diary, still the standard text-book on southern South America, Patagonia was condemned as barren and useless, and was so judged by the public, chiefly I think on this account, for some sixty years after his visit. The corollary to DARWIN's error, that the Patagonian hinterlands resembled those lying behind the Buenos Aires pampas, was that the Andean water parting followed the line of its highest peaks throughout. This error was later perpetuated by local treaty makers, who had not DARWIN's excuse for lacking geographical data, with the consequence that the settlement of the Chilean-Argentine boundary has only taken place within the last decade.

After going into the details of construction, etc., Mr. BARCLAY describes the new routes and old.

From Buenos Aires to Valparaiso round the Horn involves a sea journey of some 3,500 miles. The actual saving by the Transandine Railway between these two points in distance is 2,700 miles, in time eleven days, and in cash about £20 for each first-class passenger. The immediate effect of the opening of the line has been, therefore, to kill all first-class passenger traffic by sea to Valparaiso and to Chilean ports which have a local service with Valparaiso. This has resulted in the amalgamation of the Pacific Steam Navigation Company which served the Chilean seaboard, with the Royal Mail Steam Packet Company, whose interests, being closely allied with those of the Buenos Aires and Pacific Railway, benefited in proportion as those of their competitors suffered. Thus we have the premier passenger and freight service to Buenos Aires and Valparaiso by sea from England, as well as the transcontinental land service, practically under the control of a single corporation. It requires no very far vision to foresee that the management will ultimately be obliged to put a regular service across the South Pacific from Valparaiso to Auckland, in the same way that the Canadian Pacific Railway have placed liners on the North Pacific to Japan, in order to feed their Pacific terminals. The passage from Valparaiso to Auckland is 3,800 miles, which could be covered by 16-knot boats in ten days. At present a line of steamers running direct from Chile to Australasia is the more necessary, since for a voyage from Valparaiso to Auckland or Sidney to-day by mail steamer it is first necessary to go to San Francisco or Vancouver.

What the author has to say relative to the usefulness of the Chilean worker should prove of interest to those in charge of the procuring of this class of labor for the Canal Zone.

The Chilean peon, the native "roto," proved himself the best workman on the construction, superior even to the Italian. The proof he has afforded here of his exceptional worth may lead to future recruiting of labor from this source for construction outside of Chile.

"The Extension of American Banking in Foreign Countries," in *"Banking Problems"* for November, by SAMUEL McROBERTS, Vice-President, The National City Bank of New York. A paper giving collateral information on American commerce and its development abroad, wherein the author shows how United States banks are forbidden foreign fields because of inimical legislative enactments. One crying need for branches of home banks in the promotion of trade is shown by the following paragraphs:

The American merchant, in extending his trade, suffers from the lack of intimate contact and confidential relations with the business life of other countries, which can best be supplied by resident American bankers. Under the present state of affairs, if he would inform himself as to particular trade conditions, as to the standing of a customer or make any of the confidential inquiries that are incident to business, he must seek some other firm that is engaged in the same territory in which he is operating or a banker having much closer affiliations with his competitors in Europe. There has been an effort made to supply this deficiency through the mercantile agencies, but the people of South America and the Orient do not take kindly to the interrogation of such agents; and the information, which otherwise would be readily obtainable by a banking institution, is often withheld and the inquiry resented. American banks abroad would be dependent for their prosperity very largely upon the extent of American commerce in their territory, and, by reason of self-interest, would be the most potent promoters of American enterprise, just as experience has proven the European international bank to be a vitalizing element in the all-nations trade of Europe. Excepting the United States, every important country that is engaged in the exporting of manufactured products has furnished the facilities under notice for trade through the extension of its banking system to foreign territory. The customs of banking and the laws of the various European commonwealths are not unfavorable to the upbuilding of international banks, consequently the European banking house may set up its branches to the ends of the earth. English banks are as universal as commerce, while those of Germany, France, and Italy are coextensive with German, French and Italian trade. For illustration, take a certain English international bank as being typical under the British system. This is a bank incident to the English interests in South America. Its home office is in London, and as an institution it is a citizen of England and under the protection of that Government's foreign policy. It has branches in Valparaiso, Santiago, Iquique, Antofagasta, Copiapo, Coquimbo, La Serena, Chillan, Concepcion, Punta Arenas, and Ovalle, Chile; Buenos Aires, Mendoza, Bahia Blanca, and Rio Gallegas, in the Argentine Republic; Montevideo, Uruguay; and Oruro, Bolivia; and, additionally, some 45 agencies in other parts of South America. The ease, facility, and safety for financial transactions afforded to the Englishman and his interests in that part of the world covered by this institution can be appreciated at a glance.

Mr. McROBERTS suggests the modification of United States banking laws in order to improve existing conditions.

"The Centenary of Chilian Independence," the leading article in the South American supplement of the "*London Times*" September 27, 1910, is a review of the political history of Chile and a résumé of the reasons that justify the Chileño in their unbounded optimism when speaking of the future.

"Government Concessions in South America," another paper in the "*Times*," contains so much unusual information that we do not hesitate to quote it fully:

Most of the States of South America are now in the second stage of commercial and economical development. The cities in the coastal area have already reached a high degree of civilization, and the comparatively narrow fringe of land bordering the two oceans, the rivers, and the railway lines is, for the most part, cultivated or utilized on the most up-to-date principles. But the vast interior, amounting to about 5,000,000 square miles, remains commercially unexploited and in many parts unexplored.

The ten nations (exclusive of the Guianas of England, France, and Holland) to whom these enormous tracts of country belong need both capital and labor to promote the exploitation of the great natural riches of the soil. In exchange for these services the governments of these States offer much in the way of "concessions" to induce foreign enterprise, capital, and labor. Although many laws are already in force governing the granting and sale of large tracts of land, prospecting, mining, and the leasing of rubber-bearing trees, a *bona fide* applicant desiring a concession which is not already provided for by existing laws need only present a statement of what is proposed to the Minister of Lands or Public Works. Such a proposal is then considered by a Technical Commission, and if a favorable report is presented thereon to Congress a special decree may be issued granting the required concession. It should, however, be remembered that applications for concessions of any description can only be made by principals or agents resident in the country.

6,000-ACRE ESTATES IN ARGENTINA.

Argentina has received much attention during recent years from European and American capitalists and more than its share of the stream of emigration which is continually flowing from Europe to the New World. As a consequence most of the industries have now been established many years, and therefore the openings for foreign capital do not lie in the same direction as in countries which have not yet attained the same high degree of development.

More than 30,000 square leagues of land still remain at the disposal of the Federal Government. The plans for the exploitation of this huge tract include the formation of immigrant colonies, in which "lots" varying from 50 square yards on the sites reserved for villages to 6,000 acres for stock-raising purposes are granted to immigrants upon conditions which are by no means onerous. It is the sale of state lands by auction, however, which will interest the British colonist most, for the sole condition imposed is that the land must be worked within two years from the date of purchase. These lots have an area of 6,000 acres, and although they are sold to the highest bidder, the minimum price of sale is \$1 paper per 2½ acres in the Territories of the Pampa and Patagonia, where the largest portion of the undeveloped state lands are situated. Payment may be made by installments. The Government only grants concessions of land at such times as may be indicated by the decrees, which are published at least ninety days before the date of sale.

The laws relating to mining are exceptionally liberal. Prospecting in every region of the Andes, and on all public ground which is unoccupied, is permitted without applying for a license. Upon the discovery of a mine it is necessary, however, to present to the delegation an application for a concession in duplicate, accompanied by specimens of the ores extracted and a plan of the exact location. The title to the property is granted as soon as the government officials have made the necessary surveys. No taxes are imposed on mining properties nor on the minerals extracted. The exports of all kinds of ores or metals is also free of duty.

RAILWAYS AND MINING IN BRAZIL.

The concessions offered by the Federal Government of Brazil and the governments of the various States forming the Union are varied. Millions of square miles are as yet unexploited, but in Brazil, as in many other of the South American countries, it is he who goes far afield who has the best chance.

Railways now traverse all the populated districts of the coast, and are being pushed inland, but there are opportunities for new lines in many of the northern States. The Government is ready to consider applications for railway concessions, especially when plans are included for the introduction of emigrants from south Europe and their settlement on the land adjoining the projected lines. It is necessary when applying for a railway concession in Brazil to lay before the Technical Commission plans of the exact route and details of construction and after working, together with specifications of the land necessary and the localities in which it is required. Concessions of this character are frequently granted for a number of years, the whole undertaking afterwards reverting to the State upon the payment of a fixed sum.

Subsidies are granted by the Brazilian Government for the construction of public roads and the establishment of motor services between two or more States. The maximum amount payable for these combined services is £250 per kilometer. The various States also grant special subsidies for the introduction of new industries which may be considered specially applicable to any district or city.

The principal mining regions in Brazil are situated in the States of Minas, Bahia, and Matto Grosso. Prospectors must apply to the governor of the State for a license, indicating at the same time the approxi-

mate region in which they desire to pursue investigations. A free concession of land is granted, upon the discovery of a mine, when the necessary surveys have been made. The tax upon minerals varies from 1 per cent to 5 per cent.

In the Amazon Valley rubber-producing trees abound in large quantities, and an "estrada," or estate, containing many thousand trees can be leased from the Government for a comparatively small sum. The chief difficulties encountered at present arise from the uneven distribution of trees in the forests and the scarcity of labor. The latter difficulty can, however, be overcome by the introduction of suitable immigrants with the help of the facilities offered by the Federal Government.

BOLIVIAN CONCESSIONS.

The advance guards of civilization, such as railways and drainage and waterworks, are much needed in Bolivia. In a vast and naturally rich country already inhabited by several millions of people, and yet almost destitute of large public works, the field offered for the investment of foreign capital is great. Here, perhaps, more than in any other country of South America, the railway builder has a golden opportunity, for at present there are but few lines in the whole of the State, which has an estimated area of over 700,000 square miles.

No license is required by prospectors on unoccupied land, and to obtain a mining concession it is only necessary to file a petition. Upon the granting of the patent a fee of 5 bolivianos is charged, and the land, which is granted in perpetuity, is only taxed at the nominal rate of 5 bolivianos per 2½ acres per annum. Tracts of land up to 100 square leagues, small kingdoms in themselves, can be purchased by installments; and concessions of rubber-producing trees, which grow luxuriantly in the Beni country, may be obtained for the moderate sum of 15 bolivianos for every 150 trees.

CHILE AND PERU.

Novel concessions are offered by the Government of Chile by the leasing of fertile islands off the coast of the Republic. They may be rented for long periods at the rate of a few shillings per acre. The region of the Andes has long been famous for its rich metals, and prospectors on the western slopes would find the mining codes of both Peru and Chile exceptionally liberal. The general conditions governing the granting of mining concessions in these two countries are much the same as those for Argentina and Brazil.

A very wide field for the construction of railway lines is offered in Peru. The Government has created a fund of £200,000 per annum to be used in granting guarantees of interest and offering other inducements to capitalists to build new railways in the country. The land is usually given free by the State, together with a guaranty of 6 per cent for twenty years on the capital invested; but the line reverts to the State after ninety-nine years.

In the forest region of Peru rubber trees grow luxuriantly, and a special form of concession is offered by the Government. A number of trees are leased for the term of ten years, and the only charge made, other than the small export duty, is 4 shillings on every 101 pounds of rubber actually obtained from the trees. There are several other forms of contract, among which is one for the ownership of trees and land at the rate of 10 shillings per 2½ acres.

Among the smaller States of South America Uruguay is undoubtedly the most prosperous. The whole country is crossed by railways, and nearly all the land is utilized. Here the establishment of public works and immigration colonies in conjunction with railway lines form the most attractive concessions.

The Government will give favorable consideration to any fair proposal for the construction of a railway line through the easily accessible territory of east-central Uruguay or along the Atlantic coast. All application for railway concessions must be placed before the Minister of Public Works. It should be noted, however, that the establishment of immigrants along the line of route is considered necessary. There are also many profitable openings for the erection of waterworks in the rapidly growing towns of the south. A monopoly, as well as a small monetary subvention, is often granted.

About Paraguay and Ecuador little can be said, for they are now in the early stages of economic development and need, in large amounts, both capital and labor. The former State offers large tracts of land, suitable for cattle-breeding purposes, at a price which few countries in the world can equal. Estancia-land in Paraguay varies from \$800 (current funds) to \$100 per square league.

Other articles of interest are: "Continent and Canal," "The German Settler in Brazil," "Traveling in the Argentine," "The Land of the Jesuit Missions," "The Chivalry of Ancient Peru," "The Earliest Exploration of the River Amazon," "The Panama Canal and the Monroe Doctrine," and "The City of Rio."

"Commercial Opportunities in the Mexican Republic," by C. T. MASON, in the "Exporters and Importers Journal" for October 15. A review of the Mexican market as a commercial field for American manufacturers, in which the author intimates that the 62 per cent of the total Mexican imports to fall to the share of the United States is due more to geographical proximity and luck than to good management. Mr. MASON thinks that the American manufacturers fail to cater to the trade idiosyncracies of our brothers across the Rio Grande, and thereby miss many opportunities.

He ascribes to the Mexican the Missourian characteristic, "he must be shown." That the author is correct is proved by an anecdote illustrating unusual commercial ingenuity that comes to mind. It was the custom of the Aztec husbandman, we believe, in common with other older peoples, to plow with wooden shear and yoke of oxen. The implement was of simplest design, and having one handle only, thus allowing the tiller of the soil to guide his animals with the aid of a long stick that he carried in his right hand. Nearly the same plows and same methods of plowing hold now. An American tried to introduce modern plows and failed. In vain did he extol the merits of his own plow and decry the archaic instrument in common use. In practice the Mexican had both hands occupied guiding the American plow and had no way of starting, turning, or halting his oxen, trained to obey the touches of the long stick. He rejected the novelty. The American salesman then conceived the idea of making one-handed plows to suit the Mexican system, and to-day shipments of this maimed farming implement crowd the holds of vessels bound for Veracruz.

That Mexican business merits closer attention because it is constantly increasing is shown from the following figures:

The purchasing power of Mexico, particularly within recent years, has steadily advanced, not only in regard to American products, but also those of European origin. If we look back over a period of ten years (1897 to 1906) we can not but be impressed by the steady progress which the country has made in its imports from all foreign nations. The first year the total amount was 42 million dollars, in 1899 this amount had increased to 50 millions, in 1900 to 61 millions, in 1901 to 65 millions, in 1903 to 76 millions, in 1905 to 86 millions, and in 1906 to 109½ millions.

The German salesman fills the niche of "model boy" in all export stories these days, and deservedly.

Indeed, it is not too much to say that the Germans are the most wideawake salesmen operating at the present time in Mexico. Within a comparatively short period, as we have already noted, they have raised the sale of their national products not only above their French rivals, but even above their British competitors. They have entered the market, as they entered all other markets, with the firm determination to succeed. In doing so they have catered to the needs of the consumer, supplying him with the goods he requires and not trying to dictate to him in matters of which he is the most competent judge. The likes and dislikes of the natives have been studied, and local German salesmen, to all practical intents and purposes, have Mexicanized themselves as far as such a metamorphosis is possible. In addition to this, and it is one of the strongest levers in the popularity of German hardware, the manufacturers in their earnestness to suit the market have made cheap goods for it expressly.

What the author writes relative to the patent medicine market holds good in a general way throughout all Latin America.

The drug and chemical trade, which now amounts to nearly 3½ millions annually, is one of the secondary lines which has proved a very encouraging market for American manufacturers. Patent medicines are much sought for among the Mexicans, and many of our advertised nostrums have found a ready sale throughout all parts of the Republic. Each of the large cities have several *boticas* or drug stores, often quite as impressive in their display of medicines, perfumery, and other sundries as may be seen in cities of a like size in the United States.

We wish Mr. MASON had brought his figures down to date, but in spite of the fact that they are somewhat old, they give a good idea of what is doing in Mexico in a trade way, and we recommend the article to the careful consideration of American manufacturers.

"*El Español como Lengua internacional*," a brief summary of a subject worthy of considerable elaboration, appears in "*Las Dos Americas*," for October, 1910.

That the idea of a universal medium for the interchange of ideas is not Utopian, is shown by the interest aroused by the Esperantists. In no disparagement of the idiom invention of Doctor ZAMANHOF, than whom there is no more enthusiastic supporter than our Director General, it may be argued that the fact of 80,000,000 of people already speaking a language weighs heavily in its favor when we consider adopting it as a

universal tongue. We know the rejoinder to this: "Why not English, now spoken by, say, 200,000,000," and the answer is "the national pride of other countries would never let them consent to its adoption; also English is not easily acquired, and is not a scientific tongue."

One of the Romance languages—Spanish—is readily learned by all the Latin peoples and is at this time the idiom of 19 nations, occupying an area of a million square miles or larger than the whole of Europe, including Russia. That it should become the universal language of the Western Hemisphere anyway seems within the realms of possibility, when we remember that 18 countries already use it on this side of the globe, that it is not dissimilar to Portuguese, the language of Brazil, and that the commercial interests of the United States in Latin American countries will soon make an acquaintance with it extremely useful if not imperative. These facts speak strongly in favor of Spanish as an International language.

"El Peru, pais de la cultura mas antiguo," is another instructive article appearing in the same magazine.

"The Development of Panama by Public Roads," by EDWARD PERRY, in the November number of "*The Engineering Magazine*," gives a comparative statement of road building in the little Republic. There has been a remarkable interest shown by the natives in the improvement and extension of communications.

This table, taken from Mr. PERRY's article, shows the mileage in 1908:

When Panama became a Republic there were no accurate records of the mileage of roads, nor of the number, age, or condition of her bridges. All these data were to be gathered at first hand, by surveys in the field. Her count of roads and bridges from 1904 to 1908 was as follows:

Provinces.	Mileage.	Bridges.	Value.
Cocle.....	29.80	8	\$126,000
Chiriqui.....	326.79	34	113,035
Los Santos.....	45.88	10	58,796
Veraguas.....	56.92	9	60,300
Total.....	459.39	61	358,731

We are under the impression, however, that President AROSEMENA is not as yet convinced of the practicability of the Panama-David Railroad, but he is heartily in accord with all efforts to develop the country agriculturally. This is shown by the following:

The purpose of the Government has been from the very beginning, and is now emphatically, to promote agriculture in the ways which shall be best for those who will make farms there; to encourage the firm establishment of a multitude of small farms, such as exist in France, and to discourage the holding of large tracts to the exclusion of thousands of diligent, frugal people who would give that stability and peacefulness which are necessary to lasting prosperity.

To this end Panama offers to each person who wishes it a lot of 50 hectares (247 acres) for \$50, or a minute fraction more than 20 cents an acre. If one takes 200 hectares the price will be \$55, and if 1,000 hectares the charge will be 95 cents per hectare; 10,000 hectares would cost \$5.45 per hectare, and 20,000 hectares would come to \$209,000, or \$8.46 per acre. Half of the price may be paid, with interest at 6 per cent, at the end of a year from the payment of the first half.

Improved wagon roads, the new national railroad, and the Panama canal, will give to her farmers quick and easy transportation to the great markets, at relatively small cost. The canal itself, when the fleets of the world shall be using it, will be a profitable market for much fresh food, and such products can even now be sent by water to all parts of the Pacific shore.

"The Commercial Value of the Panama Canal," by JAMES PEABODY, in the November issue of "*The World To-day*," is an article dealing with the canal from a commercial point of view, in which the author answers the recent publications of Rear-Admiral ROBLEY D. EVANS.

"**South America To-day**," by CHARLES WELLINGTON FURLONG, in "*The World's Work*" for November, is an epitome of trade and civic conditions in the 10 Republics of the Southern Continent. Mr. FURLONG speaks of the awakened interest in Latin America, in which he appreciates the work of this Institution.

"**The Personal Recollections of Porfirio Diaz**," is continued in the November number of the "*Cosmopolitan Magazine*."

"**Eves of an Unknown Eden**," by E. ALEXANDER POWELL, F. R. G. S., in "*Everybody's Magazine*" for November, is a description of the beautiful women of the Tehuantepec Isthmus.

"**Railways in the State of Sao Paulo**," which is the eighth paper on "**The Railways of Brazil**," by LIONEL WIENER, appears in the November issue of "*Cassier's Magazine*."

"**Arte Argentino—Cuadros de Carlos P. Ripamonte**," in "*La Ilustración Artística*" for October 24, 1910, is an illustrated account of the recent success of Argentine artists at the International Exposition in Brussels. Three examples from the brush of CARLOS P. RIPAMONTE, who is Vice-President of the Academy of Belles Artes in Buenos Aires, are shown.

"**The Growing of Guayule in Relation to the Soil**," by J. E. KIRKWOOD, is the leading article in "*The American Review of Tropical Agriculture*," May-June, 1910. "**Rubber in Mexico**," by PEHR OLSSON-SEFFER, and "**Causes of Destruction of Agricultural Land in Mexico**," by RUNAR L. OLSSON-SEFFER, are two other interesting papers in the same magazine.

"**Centennial Month in Mexico**," by JOHN METEER, is the leading article in "*Mexico To-day*" for August, 1910. As usual, this magazine is filled with descriptive material dealing with the Republic immediately to the south of us.

"**Mexico's Big Centennial Celebration**," by GEORGE F. PAUL, and "**Vuelta Abajo**," by I. A. WRIGHT, are two interesting articles on Latin-American subjects in the November number of "*The Taylor-Trotwood Magazine*."

"**Exposicion de Buenos Aires**," in "*La Revista Ilustrada y Boletín Comercial*," is an excellent article in Spanish, by Mr. DILLWYNN M. HAZLETT, who is manager of the Foreign Trade Association, and has recently returned from an extensive trip throughout America. He gives a graphic description of the recent exposition held in Buenos Aires.

"**The Fall of Guaimaro**," a continuation of Brig. Gen. FREDERICK FUNSTON'S reminiscences as a Cuban filibuster, in "*Scribner's Magazine*" for November, 1910.

"**Exploring the Antarctic**," by ERNEST GOURDON, in "*Harper's Magazine*" for November, is an account of a recent expedition to the farthest south.

"**Prosperous South America**" is the title of a résumé of the South American trade situation appearing in the October number of "*The Bankers' Magazine*."

"**Our Panama Outing**," by FELIX J. KOCH. A short account of a hunting trip in Panama in "*Overland Monthly*" for October.

"**Lluvia de Oro Mine**," by MARK R. LAMB. A description of this rich mineral field in Chihuahua, Mexico, appears in "*Industrial Progress*" for November.

"The Centennial of Mexican Independence." The leading article in *"Dun's Review"* for November.

"Los Auto-botes en los Campos del Negocio de la Diversiones," by W. E. PARTIDGE, in which the author points out the different uses to which motor boats can be put, appears in *"Foreign Trade"* for September.

"Commercial Cuba," by JOHN J. MACFARLANE, in *"Commercial America"* for November, 1910, is a paper that goes extensively into the exports and imports of the island of Cuba.

"Panama, the Golden," with three handsome illustrations, appears in *"Scenic America"* for October.

"Cria y Engorde de Cerdos en Uruguay," by VENANCIO FLORES, an illustrated article dealing with the raising of hogs, in the November number of *"La Hacienda."*

"El Nopal Como Alimento de las Vacas de Leche," by W. SINCLAIR, showing the value of cactus as a grazing plant, and *"La Escuela de Experimentacion de Tabaco de Sanli, Honduras, C. A.,"* by DR. FRANCISCO VALLE CARCOMO, are other articles in the same magazine.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO NOVEMBER 15, 1910.

Title.	Date of report.	Author.
ARGENTINA.		
Prosperity of the City of Buenos Aires in July, 1910.....	1910. Sept. 3	R. M. Bartleman, Consul-General, Buenos Aires.
Government competition for automatic couplers for railways.	Sept. 17	Do.
Trade Notes: New industrial school to be built in Rosario, with capacity for 400 pupils, and to be equipped with all modern apparatus for development of the manual arts. The Senate of the Province of Santa Fe has sanctioned a loan of £1,900,000 sterling to be expended in general improvements. New meat preserving plant to be established in Province of Corrientes, the company being organized having a capitalization of \$1,000,000 gold. Five thousand tons of rice produced annually in Province of Tucuman. Alfalfa has become one of leading agricultural products of Province of Cordoba, and area under cultivation is steadily increasing as shown by table. Two floating schools have been added to educational facilities at Gualaguaychu, Province of Entre Rios. These ships travel about various islands and remain for a few days at each settlement or village, enabling inhabitants of islands to secure education. Central Argentina Railroad inaugurated daily express service between Rosario and Buenos Aires—run made in four hours and fifty minutes, distance being 190 miles. National Government issued decree establishing free zone in Rosario to facilitate dispatch of imported goods.	Sept. 22	H. P. Coffin, Consul, Rosario.
BRAZIL.		
Brazilian cocoa-palm.....	Sept. 14	P. M. Griffith, Consul, Pernambuco.
CHILE.		
Salt industry in Chile.....	Sept. 13	A. A. Winslow, Consul, Valparaiso.
Trade and Industrial Notes: 889 post-offices in Chile to serve population of about 3,500,000 people. There are 22,334 miles of telegraph lines in Chile, of which the Government owns 16,513 miles. Mining industries of Chile employ 60,000 persons, while railroads of country employ 65,000. Chilean merchant marine consists of 156 vessels, several being steamers of 3,000 to 4,000 tons. Government of Chile maintains 51 light-houses along	Sept. 15	Do.

Reports received to November 15, 1910—Continued.

Title.	Date of report.	Author.
CHILE—continued.		
coast of Chile and Strait of Magellan at annual cost of \$88,731. During first six months of 1910 406,000 tons coal were mined in Chile, 241,552 tons of which were consumed by shipping interests. Since discovery of gold in Chile it has been mined to the value of \$222,923,005 United States gold; silver to value of \$311,093,058; copper to value of \$658,575,153; and nitrate to value of \$1,122,874,274. There have been 20,632 mineral claims located in Chile, covering total area of 522,336 acres, of which 10,821 were copper, 3,893 gold, 904 silver, 86 gold and silver, 530 gold and copper, 173 iron, 99 manganese, 32 aluminum, 1 antimony, 1 nickel, 4 mica, 338 sulphur, 1,385 nitrate, 687 salts of potash, 399 salt, 4 diamond, 33 china clay, and 40 coal.	1910.	
Wool production in Chile.....	Sept. 15	A. A. Winslow, Consul, Valparaiso.
Port charges, facilities, etc.....	Sept. 27	Do.
Port improvements at Valparaiso and San Antonio, Chile.	Sept. 28	Do.
DOMINICAN REPUBLIC.		
Report on banking in the Dominican Republic.....	Sept. 25	P. E. Holland, Consul, Puerto Plata.
Use of paper bags in the Dominican Republic.....	Oct. 3	Do.
Shoes in the Dominican Republic.....	Oct. 15	Do.
HONDURAS.		
Port charges, facilities for handling cargoes at Port of Amapala, and other matter concerning the importation of merchandise into foreign countries.	Sept. 29	Arminius T. Haeberle, Consul, Tegucigalpa.
Display of American manufactured articles in Honduras.	Oct. 6	Do.
Amplification of report on guano palm or cork wood of Central America.	Oct. 11	Claude I. Dawson, Consul, Puerto Cortes.
Hat industry.....	Oct. 13	Arminius T. Haeberle, Consul, Tegucigalpa.
MEXICO.		
Packing for export.....	Sept. 9	Sam ^e E. Magill, Consul, Guadalajara.
Annual trade and industrial report of the Tapachula consular district for the year 1909.	Sept. 20	Albert W. Brickwood, jr., Tapachula.
How to hold the trade of Mexico—export the best.....	Sept. 24	Sam E. Magill, Consul, Guadalajara.
Exports from Ciudad Porfirio Diaz, Mexico, district to the United States, from March 31, 1910, to June 30, 1910.	Sept. 30	E. L. Ellsworth, Consul, Ciudad Porfirio Diaz.
1909 Annual Report.....	do.....	A. Shanklin, Consul-General, Mexico.
Soconusco, Chiapas, Mexico.....	Oct. 1	A. W. Brickwood, jr., Consul, Tapachula.
Soconusco coffee growers' meeting.....	do.....	Do.
First linotype in San Luis Potosi, Mexico.....	Oct. 4	W. L. Bonney, Consul, San Luis Potosi.
Law requiring erection of monuments to mark boundaries of mining claims.	do.....	Alexander V. Dye, Consul, Nogales.
Sale of agricultural machinery in Mexico.....	do.....	P. C. Hanna, Consul-General, Monterey.
Transmission of electric power into San Luis Potosi by American company.	do.....	W. L. Bonney, Consul, San Luis Potosi.
Agriculture in valleys of Zintalapa and Jiquipilas, State of Chiapas, Mexico.	do.....	A. W. Brickwood, jr., Consul, Tapachula.
Notes: Kosmos Line of Hamburg, which maintains combined freight and passenger service between Hamburg, Germany, and Puget Sound, has given notice of discontinuance from port of Salina Cruz—service was regular and satisfactory, many persons going to that port to take passage. Toyo Kisen Kaisha Steamship Company, of Japan, operates line of freight and passenger steamers, plying from the Orient to west coast of Mexico, thence south to Chile and Peru, making Salina Cruz a port of call. Port works: No activity in development of port works at Salina Cruz for some months, but work will go forward in a short time. Additional docks, with large warehouses adjacent, to be constructed and large dry dock made available by dredging out adequate channel thereto. Plantation companies: Exploitation by land companies continues. Land is good, mostly level, and well watered. Careful scrutiny of land propositions is suggested in behalf of prospective investors.	Oct. 5	L. W. Haskell, Consul, Salina Cruz.

Reports received to November 15, 1910—Continued.

Title.	Date of report.	Author.
MEXICO—continued.		
Report for Department of Commerce and Labor.....	1910. Oct. 5	Thos. D. Edwards, Consul, Ciudad Juarez.
Roofing in Mexico.....	Oct. 6	P. C. Hanna, Consul-General, Monterrey.
Department of Pichucalco, Chiapas, Mexico.....	do...	A. W. Brickwood, jr., Consul, Tapachula.
Increase of exports from United States to Mexico.....	Oct. 7	A. B. Garrett, Consul, Nuevo Laredo.
Landed proprietors in Chiapas, Mexico.....	do...	A. W. Brickwood, jr., Consul, Tapachula.
Department of Simojovel, Chiapas, Mexico.....	do...	Do.
Declared exports for quarter ending Sept. 30, 1910.....	Oct. 9	C. A. Miller, Consul, Tampico.
Rubber tires and motor cars in Chiapas, Mexico.....	do...	A. W. Brickwood, jr., Consul, Tapachula.
Plantations at Palenque, Chiapas, Mexico.....	Oct. 10	Do.
Acetylene gas—calcium carbide.....	Oct. 11	S. E. Magill, Consul, Guadalajara.
Automobiles.....	Oct. 12	Do.
Territory of Quintana Roo, Mexico.....	Oct. 13	W. W. Canada, Consul, Veracruz.
Canned mangoes.....	Oct. 14	A. B. Garrett, Consul, Nuevo Laredo.
Drugs, chemicals, etc.....	do...	S. E. Magill, Consul, Guadalajara.
Plumbers' supplies.....	do...	Do.
Stationery and fancy goods.....	Oct. 15	Do.
Groceries.....	Oct. 17	Do.
Haberdashery.....	Oct. 19	Do.
Suggestions regarding development of American trade with Chiapas, Mexico.....	do...	A. W. Brickwood, jr., Consul, Tapachula.
Excerpt from Mexican mining law, relating to marking boundaries of mining claims with monuments.....	Oct. 22	C. M. Leonard, Vice-Consul, Chihuahua.
Contents and weight of packages for export.....	Oct. 25	A. B. Garrett, Consul, Nuevo Laredo.
Industrial and trade notes: Concession for establishment of zinc smelter approved by legislative branch of State of Coahuila, to be located at Saltillo. Provision in concession made for other smelting plants in different parts of State. Reduction in regular mining impost tax also provided for output of new or abandoned mines which may be worked by the enterprise within State of Coahuila. Railroad project mentioned in notes forwarded April 19 will have name "Ferrocarril Mexicano del Centro"; eastern terminus to be at Gomez Farias Station, Coahuila, on the Laredo-Mexico City line of the National Railways, thence proceeding westward across the line of the Coahuila and Zacatecas Railway near Avalos Station; western terminus to be at Camacho Station on old Mexican Central Line. Legislature of Coahuila granted to a brewery plant of Sabinas, Coahuila, exemption from taxation of 100,000 pesos, which the company is to invest in improvements of its plant.	Oct. 28	T. W. Voetter, Consul, Saltillo.
Cotton crop of the Laguna district.....	Undated	C. M. Freeman, Consul, Durango.
SALVADOR.		
Additional shipping facilities for Salvador.....	Sept. 28	T. E. Dabney, Consul-General, San Salvador.
Total exports from Salvador, January to June, 1910.....	Oct. 6	Do.
URUGUAY.		
New route from Australia to England.....	Sept. 6	Frederic W. Goding, Consul, Montevideo.
Imports and exports of Uruguay, and movements of vessels for first six months of 1910.	Sept. 15	Do.
VENEZUELA.		
Tariff classification of imported wines.....	Oct. 1	S. Whitehouse, Charge d'Affaires, Caracas.
Tariff classification of rubber tires and rubber sheets.....	Oct. 15	Do.

ARGENTINE REPUBLIC

FREE IMPORTATION OF RAILWAY MATERIALS.

One of the recent numbers of the "*Boletín Oficial*" of the Argentine Republic publishes an important presidential decree exempting certain railroad materials from duty in Argentine ports. This list further enlarges the free importation of railway supplies and materials, and together with the older laws, it gives free entry into Argentina of practically everything needed for building or running railways. A copy of this list is on file in the Pan American Union and may be consulted at any time.



POLICE GUARD IN THE NORTHERN TIMBER COUNTRY OF ARGENTINA.

TREATY OF COMMERCE WITH NICARAGUA.

A treaty of friendship, commerce, and navigation was recently entered into at Buenos Aires between the Argentine Republic and Nicaragua.

STREET PAVING IN BUENOS AIRES.

The Argentine Congress has recently authorized the municipality of Buenos Aires to issue bonds up to 20,000,000 pesos paper (about \$8,800,000 U. S. currency) for the purpose of paving the streets.

The kind of paving to be used in each case shall be determined by the municipality, and the work shall be done by contract awarded

to the lowest bidder. The contract shall be signed by a majority of the real estate owners of the particular street on which the paving is to be done.

Some streets of Buenos Aires are paved with granite, others with wood, and still others with asphalt.

In 1909 there were imported into the Argentine Republic 58,997,072 kilos of granite paving blocks, with a tariff value of \$147,492.

Particulars regarding bids may be obtained from the "Jefe de la Oficina Ley de Pavimentación, Gobierno Municipal de Buenos Aires," Argentine Republic.

UTILIZATION OF FLAX STRAW.

An Argentine engineer, Señor EUSEBIO E. GARCÍA, has made a most important discovery, which will give a new and powerful impetus to the flax industry of the Republic. It means that several millions of dollars worth of fiber that have hitherto been wasted annually will be turned to account. Señor GARCÍA's discovery is a process of utilizing flax straw after the seed has been thrashed.

For the purpose of exploiting the discovery a company has been formed in Buenos Aires, which has already in operation a plant capable of turning out daily 4 tons of flax fiber available for the manufacture of textiles and fine paper, and, in addition, 10 tons per day of material for the manufacture of tweeds, cordage, coarse paper, etc. These articles are now being imported into the country to the amount of \$66,882,137 gold per annum. The Government of the Province of Buenos Aires, realizing that the commercial utilization of flax straw is of vital importance to the nation and that it should therefore receive official encouragement, has detailed an engineer to report upon the subject and to recommend such adequate measures as will promote the establishment of the new industry.

THE PROGRESS OF AGRICULTURE.

Señor CARLOS LIX KLETT, the famous Argentine economist, publishes in one of the recent issues of the "Boletín de la Real Sociedad Geográfica de Madrid" an interesting article in which he sets forth the remarkable progress achieved in agriculture in the Argentine Republic. For the purpose of his argument, he makes the following comparison of each of the three leading articles of export:

Wheat.—The annual average during the decade from 1899–1900 to 1908–9, in comparison with the nine years previous, presents these differences: The cultivated areas increased from 2,058,000 to 4,603,000 hectares, or 124 per cent; the production increased from 1,529,000 to 3,800,000 tons, or 149 per cent; the amount of seeds from 136,000 to 346,000 tons, or 154 per cent; the consumption

increased from 481,000 to 751,000 tons, or 57 per cent; the stock on hand from 912,000 to 2,323,000 tons, or 155 per cent; the exports of wheat from 832,000 to 2,141,000 tons, or 157 per cent; and the exports of flour from 38,000 to 97,300 tons, or 156 per cent.

Flax.—The annual average during the five years, 1905–1909, compared with the five years previous, 1900–1904, shows similar differences: The cultivated area increased from 908,000 to 1,245,000 hectares, or 37 per cent; the production from 526,000 to 861,000 tons, or 64 per cent; the exports from 475,000 to 780,000, or 64 per cent.

Maize.—The annual average during 1905–1909, as compared with that of 1900–1904, gives the following differences: The cultivated area increased from 1,514,000 to 2,710,000 hectares, or 75 per cent; the production, from 2,852,000 to 3,661,000 tons; and the exports from 1,518,000 to 2,030,000 tons, or 33 per cent.

The quality of Argentine grains has greatly improved.

The bulk of the exports of cereals and oleaginous products is shipped to Europe, and the shipments of linseed to the United States are steadily increasing.

AGRICULTURAL MACHINERY.

The extent of the market in Argentina for agricultural implements is clearly shown in the following figures from the census of 1908, indicating the number of various articles in use: Plows, 368,172; corn shellers, 21,031; headers, 32,582; harrows, rakes, etc., 207,960; mowers, 33,381; seed drills, 42,056; harvesters, 2,523; thrashers, 4,862; hay cutters, 23,793.

THE BUDGET FOR 1911.

The Congress of Argentine Republic has at present under consideration the budget for 1911, wherein the expenditures are estimated as follows:

	Paper pesos.
Congress.....	4, 597, 260. 00
Interior.....	36, 092, 349. 24
Foreign Affairs.....	5, 636, 077. 00
Finance.....	15, 003, 540. 00
Public Debt.....	71, 573, 598. 00
Justice and Public Instruction.....	47, 235, 438. 81
War.....	25, 137, 111. 96
Navy.....	19, 590, 758. 18
Agriculture.....	12, 515, 656. 20
Public Works.....	18, 369, 525. 00
Pensions.....	11, 500, 000. 00
Armaments and centenary.....	31, 500, 000. 00
Total.....	298, 751, 314. 39

The revenue is estimated at 298,965,412 paper pesos, leaving a surplus of 214,097.61 paper pesos.

The author concludes his article by saying that still larger increases are expected in the years to come, due to the fertility of the soil and the favorable climatic conditions of the country.

THE SUGAR CROP FOR 1910.

According to official estimates the sugar crop of Tucuman, Argentina's principal sugar district, in 1910, will amount to 120,000 tons. Adding to this amount 15,000 tons from the Salta and Jujuy crops and 8,000 or 10,000 tons from the Chaco and Santa Fe plantations, the total reaches approximately 145,000 tons. Adding to the latter 9,000 or 10,000 tons, the surplus of the last crop, the total production of sugar in 1910 for the whole Republic may be estimated at about 155,000 tons.

THE PORT OF QUEQUEN.

Under date of September 13 last the President of the Argentine Republic signed a decree approving the proposal submitted by the "Société des Grands Travaux de Marseille" for the construction of the commercial port of Quequen, at the mouth of the Quequen Grande River. The corner stone was laid on October 12. The cost of the work is fixed at 2,950,000 pesos.

DRY FARMING.

The Argentine Government has decided to engage the services of an American engineer to report upon the possibility of introducing in the Republic the dry-farming methods of the United States, in connection with the law for the development of public lands.

LOAN FOR CORRIENTES.

During the month of October a loan was floated in London amounting to £400,000 for the Government of the Province of Corrientes. A part of this loan will be devoted to colonizing enterprises and the remainder to railroad construction.

The transaction was made at 98 per cent, with interest at 6 per cent per annum.

PROPOSED WIRELESS COMMUNICATION WITH EUROPE.

Signor GUGLIELMO MARCONI, the illustrious inventor of wireless telegraphy, visited Buenos Aires during the month of September with a view to making necessary arrangements for the establishment of direct wireless communication between Buenos Aires and Europe. The results of the experiments have satisfied Signor MARCONI that

it will be an easy matter to send messages across the 5,400 miles separating Buenos Aires and Coltano (Italy), the point selected for the European station.

TOBACCO CULTIVATION IN MISIONES.

A census, recently taken of the tobacco plantations in Misiones Territory, Argentine Republic, shows the extent of tobacco growing to be as follows:

District.	Plantations.	Number of plants.
Itacurare.....	451	3,306,800
San Javier.....	252	1,592,800
Corrocora.....	232	1,404,050
Concepcion.....	229	1,292,400
Bompland.....	183	842,500
San Jose.....	58	134,000
Santa Ana.....	41	74,785
San Ignacio.....	15	66,500
Candelaria.....	10	15,300
Apostoles.....	■	12,800
Posadas.....	18	6,225
Azara.....	9	369
Corpus.....	2	2,000
Total.....	1,506	8,656,110

RAILWAY NOTES.

The Central Uruguay Railway Company have applied to the Minister of Public Works for leave to inaugurate the first section of the line from Nico Perez to Treinta y Tres.

The state lines from Formosa to Embarcacion and from Barranqueros to Metan have been terminated. These are the first of the light railways in the Chaco. Both lines will open up one of the richest sections of the country. The formal opening of these lines will take place at the end of the month. The Minister of Public Works will officiate at the exercises.

The Pacific Railway will shortly issue £1,000,000 in 4½ per cent debentures at 101.

The Senate have approved the bill authorizing the construction of a line from Tinogasta to Chile.

The South American Railway Congress opened in Buenos Aires on October 17 at 2 p. m.

There are at the present time 10,448 navvies at work on the state lines under construction.

A project is to be presented to Congress for amplifying law 5559 to include the following lines:

(1) Puerto Gallegos to the Chilean frontier, with a branch from the Rio Turbio to the Rio Vizcachas.

(2) From Port San Julian to Lake Belgrano by the Valley of Rio Chico de Santa Cruz, with various branches to join up with the line from Puerto Deseado to Lake Buenos Aires.

(3) Rawson to Bahia Cuachen and on to Tecka, joining up with the line from Puerto Deseado to Lake Nahuel Huapi.

(4) From a point to the west of Valvunieu, on the line from San Antonio to Lake Nahuel Huapi, to the Chilean frontier, passing through Junin de los Andes.

The Argentine Executive has approved the contract entered into with Messrs. DOMINGO SALVA & Co. for the construction of a railroad line from Rosario to Mendoza and a port in San Lorenzo.

The railway from Apostoles to Posadas, in the Territory of Misiones, was opened on August 16.

The new rapid service between Buenos Aires and Rosario was inaugurated on September 1. Only five hours are needed now for the journey.

The San Juan-Serrezuela Railway was opened on August 7; the Central Northern Railway is also planning to extend its line from La Banda to Santiago del Estero.

Work is being pushed on the railway from Bahia Blanca to Carmen de Patagones. The extreme southern part of the Province of Buenos Aires appears to be developing rapidly.

Of the railway from Puerto Deseado to Nahuel Huapi, 40 miles were completed on August 22. Puerto Deseado has now over 1,000 people. A large schoolhouse is soon to be erected there, and other establishments are planned to meet the growing needs of this Patagonian center.

The projected railway from Caiman to Paseo de los Indios, in the Chubut, will probably not be begun until 1911. Meanwhile the wool industry of this territory is rapidly developing, and it is stated that representatives of United States mining companies are to investigate the mineral possibilities of this little-known part of South America.

NEW COPYRIGHT LAW.

On September 22 the President of the Argentine Republic promulgated the new copyright law passed by the House and Senate on the 5th and 16th, respectively, of the same month. The adoption of this law is in great measure due to M. CLÉMENCEAU, the eminent Frenchman who has been giving a series of lectures in Buenos Aires. Mr. CLÉMENCEAU delivered a course of lectures in Brazil, where he also urged the passage of a law for the adequate protection of literary and artistic works.

BUENOS AIRES TO CHILE BY AUTOMOBILE.

Mr. IGNACIA P. DEL CORRIL, accompanied by an engineer and two chauffeurs, started from Buenos Aires September 10, 1910, in a 130-horsepower automobile on a trip across the cordillera of the Andes to Santiago and Valparaiso, Chile. They arrived in Villa Mercedes September 12.

MARITIME NOTES.

The *Texan*, on its maiden trip to Argentina, carried 14,300 tons of cargo.

During the month of October 12 steamers, fully loaded, sailed from New York to the River Plate.

It is estimated that for the year 1910 over 120 vessels, with an average capacity of 7,000 tons, cleared New York for Argentine ports.

INDUSTRIAL NOTES.

A new meat-preserving plant, capitalized at \$1,000,000 gold, is to be erected in the Province of Corrientes.

A Portland-cement factory has been opened at Rodriguez del Busto, about 3 miles from the city of Cordoba. It is capitalized at \$212,300 gold.

Five thousand tons of rice are annually produced in the Province of Tucuman.

Alfalfa has become one of the leading agricultural products of Cordoba. It has at present 1,400,000 hectares (3,459,000 acres).

**RAILROAD FROM YACUIBA TO SANTA CRUZ.**

The Bolivian Government has approved the proposal submitted by Mr. J. SIMPSON WHITTON for the construction of a railroad from Yacuiba to Santa Cruz. It is said that the proposed line is a most advantageous one. Starting from Yacuiba it will reach Santa Cruz, thence extended to Cochabamba, and, connecting with the railroad system now under construction, will establish communication between La Paz and Buenos Aires.

CAPITAL OF BANKS.

According to the balance sheets for the first half of 1910, the capital of Bolivian banks is distributed as follows:

	Bolivianos.
Banco Nacional de Bolivia.....	6, 500, 000
Banco Francisco Argandoña.....	4, 000, 000
Banco Mercantil.....	3, 000, 000
Banco Industrial.....	2, 500, 000
Banco Agrícola.....	1, 700, 000
Banco Bolivia y Londres.....	1, 000, 000

POTOSI-SUCRE RAILROAD.

The Bolivian Congress has recently passed a law providing for the construction of a railroad line from Potosi to Sucre, and appropriating for this purpose the proceeds from the sale of the La Paz-Guaqui Railway. A board is to be created to handle the funds in case the line is built by the Government itself; otherwise, that sum—£135,000—shall be applied to the payment of the guaranty 5 per cent interest on the capital that may be invested by the company undertaking the construction.

NEW LOAN.

A Reuter telegram from La Paz, dated October 27, and received in London on the 29th of the same month, states that the Bolivian Government has decided to accept the proposals of the European financiers for a loan of £1,500,000. Of this loan £280,000 is to be expended for sanitary works in the capitals of the departments; £55,000 on the surveys of railways from La Paz to Yungas, Cochabamba to Chimori, Yacuiba to Santa Cruz and Potosi to Sucre; and £165,000 for sundry public works.

EXPORTS FROM NEW YORK.

According to a statistical table prepared by the Consul-General of Bolivia in New York, and furnished the Pan American Union by the Bolivian Minister in Washington, the following articles of merchandise were exported from New York to Bolivia during the month of October, 1910:

Foodstuffs and beverages.....	\$15, 223. 75
Cotton goods.....	45, 643. 76
Machinery.....	3, 024. 67
Hardware.....	2, 583. 15
Railway material.....	2, 359. 00
Miscellaneous.....	45, 399. 85
Kerosene.....	1, 104. 00
Flour.....	3, 076. 80
Total.....	118, 414. 98



INAUGURATION OF PRESIDENT FONSECA.

The new President of the United States of Brazil, MARSHAL HERMES DA FONSECA, was formally inaugurated on November 15, 1910, with due imposing ceremony. On the same occasion the oath of office was also administered to the new cabinet recently appointed by President FONSECA.

PROJECTED NEW BANKING INSTITUTION.

It is reported that Mr. JOAQUIM DE OLIVEIRA, a Brazilian citizen, proposes to found a new bank, the capital of which will be 30,000,000 milreis, to be constituted by "apolices" or bonds of the internal debt to be advanced by the Federal Government, on which the bank shall guarantee interest at the rate of 5 per cent for ten years. The business of the bank will be to loan money to farmers and manufacturers at 6 per cent; also make loans to civil and public employees.

FOREIGN TRADE, FIRST EIGHT MONTHS OF 1910.

The following official statement shows the exports of the leading products of Brazil during the first eight months of 1910, compared with the same period of 1909. The values are given in United States money.

Articles.	1910.	1909.	Articles.	1910.	1909.
Coffee.....	\$51,582,675	\$76,151,785	Cotton.....	\$2,320,060	\$1,365,555
Rubber.....	93,193,650	53,110,390	Hides.....	6,347,890	6,241,270
Tobacco.....	7,063,685	5,869,165	Skins.....	2,628,315	3,451,540
Sugar.....	3,308,355	2,033,480	Miscellaneous.....	10,049,100	9,534,070
Herva matte.....	5,034,610	4,956,165	Total.....	186,330,335	167,357,830
Cacao.....	4,181,995	4,644,410			

NEW RAILWAY MILEAGE.

The total length of new mileage which has been added to the various railway lines during the present year, up to September 15, is officially given as 2,127 kilometers. The October number of the BULLETIN contained the length of lines opened to traffic during the month of May. Since June 1 there have been added the following sections:

On the west of Minas Railway, between Bello Horizonte and Capella Nova, 60 kilometers.

On the Victoria-Minas Railway, section between Derrubadinha and Villa de Figueira (Minas Geraes), 13.72 kilometers; section between Roca do Brejo and S. Hyppolito (Minas Geraes), 16.41 kilometers.

On the Rio Grande do Sul Railway, between Capoeira and Barro, 54 kilometers; from Montenegro to Barreto, 41.93 kilometers; from Rosario to Santa Rita, 39.85 kilometers; from Santa Rita to Porteirinha, 23.58 kilometers.

On the Leopoldina Railway, Muniz Freire to Mathilde (Espírito Santo), 80.50 kilometers.

On the Baturite Railway, Miguel Calmon to Affonso Penna (Ceara), 27 kilometers; Affonso Penna to S. Jose (Ceara), 20.34 kilometers.

On the Sao Paulo Railway, Bauru to Pederneiras, 38 kilometers.

LEASE OF THE GOVERNMENT RAILROADS IN BAHIA.

A contract was signed on November 1, 1910, by the Minister of Public Works, leasing the federal railroads in the State of Bahia to a syndicate of Paris bankers, and providing for extensions of the lines. The Frenchmen secured control of 1,875 miles of railroad. The cost of the extensions is estimated at \$35,000,000, payable in federal bonds.

REPORT OF THE GOYAZ RAILWAY FOR 1909.

The report of the Goyaz Railway Company was presented to the stockholders of the company on July 30, 1910. It states that the line has been surveyed for a distance of 896.27 kilometers, and that the final surveys for the Uberaba branch should be finished by the end of the present year. Construction work was begun on the Araguaia division on December 23, 1909. It is planned to open to traffic the first 38 kilometers of this section some time in October and to extend the line to the banks of the Paranahyba River by the end of the year. At the issue of this report the line is in operation as far as Bambui, State of Minas Geraes, 114 kilometers from Formiga, and it is hoped that by October it will be extended to Perdicao station, a distance of 134 kilometers from Formiga.

EXTENSION OF SAO PAULO-RIO GRANDE RAILWAY.

The Sao Paulo-Rio Grande Railway Company has purchased the railway rights from Asuncion to the mouth of the Iguaçu River.

THE BRAZILIAN COCOA PALM.

The cultivation of the cocoa palm has developed into a very profitable industry, particularly in the vicinity of Bahia, on the south, to Parahyba on the north. The average net profit per annum from each tree is about 3 milreis, equivalent to about \$1 American money.

TEXTILE-PLANT INDUSTRY.

The September issue of the "*O Fazendeiro*," an agricultural magazine published at Sao Paulo, contains an article on the cultivation of the fiber plant called *piteira* (*Furcroya gigantea*), the fiber of which is known in the world's markets as Mauritius hemp, it being furnished principally by the Islands of Mauritius. This plant grows wild in all parts of Brazil and is already being extensively cultivated, especially in those regions where the land has become exhausted from the production of coffee. The cultivation and industrial utilization of this plant in Brazil have already passed the experimental stage, for large plantations are found at Valenca and Vassouras, in the State of Rio de Janeiro; at Santa Maria Magdalena, in the State of Minas Geraes; and at S. Sebastiao do Cahy, Taquara, and other localities in the State of Rio Grande do Sul. The production of this fiber in the State of Rio Grande do Sul in 1908 was officially estimated at 116,200 kilos, the price obtained for the same being 400 reis per kilo on the plantation and 500 reis delivered at the port of export. The fiber of this plant resembles that of the Mexican henequen or sisal hemp. It is very strong, elastic, and long, and is used for the manufacture of bags, rope, carpets, brushes, cloths, etc. It is also employed in the manufacture of paper and denatured alcohol.

IMMIGRATION, FIRST HALF OF 1910.

According to official statistics, there entered Brazil during the first six months of 1910, 41,292 immigrants and 7,365 passengers, of whom 19,682 were agriculturists and 21,610 industrial workmen. The immigrants were of the following nationalities: Germans, 1,907; Argentines, 104; Austrians, 1,224; French, 547; Spaniards, 10,908; Dutch, 145; British, 408; Italians, 6,792; Japanese, 927; Americans, 282; Portuguese, 13,926; Russians, 1,108; Syrians, 1,608; various, 1,340.

CESSION OF LANDS FOR AGRICULTURAL COLONIES.

The Brazilian Minister of Agriculture has asked the governors of the various States of the Republic to cede lands to the Union for the establishment thereon of agricultural centers. The State of Minas Geraes has offered an extensive area of land situated on the Doce River for this purpose.

EXHIBIT OF JAPANESE PRODUCTS.

The association known as the *Associacion Industrial Japoneza y Sud-Americana*, of Osaka, Japan, has obtained permission from the Chamber of Commerce of Rio de Janeiro to install in its rooms an exhibit of Japanese products. The association will arrange for a series of lectures, to be given during the exhibition, on the necessity of facilitating an interchange of trade between Brazil and Japan.

LOAN FOR THE STATE OF CEARA.

The Government of the State of Ceara recently contracted a loan with the banking firm of Luis Dreyfus & Co., of Paris, for 15,000,000 francs, at 5 per cent, guaranteed by state funds.

PROPOSED SCHOOL LOAN FOR SAO PAULO.

A message from the President of the Brazilian State of Sao Paulo to the legislature asks authority to contract for a loan of \$3,000,000 gold for constructing new educational buildings. It calls attention to the fact that Santos, with a population of 50,000, possesses only one school building, and that Campinas, Ribeirao Preto, Jahu, Amparo, Piracicaba, Braganca, and others are in much the same condition. It is also intended to spend \$150,000 gold for the establishment of a female institute of domestic arts and science, and a male institute for teaching such manual crafts as painting, blacksmithing, and masonry. The two latter schools are to be located in Sao Paulo city.

CONGRESS ON SECONDARY EDUCATION.

It is proposed to convene a conference of professors at Sao Paulo on February 15, 1911, for the purpose of discussing measures for simplifying and enlarging the course of secondary instruction in Brazil and to determine the text-books to which preference should be given.

QUINTA DA BOA VISTA.

A section of the Quinta da Boa Vista, the ancient imperial residence at Rio de Janeiro, which is being transformed into a magnificent public park, has been completed and was formally inaugurated on October 12 last. The principal streets of the park have been named after the founders of the Empire and the Presidents of the Republic.

REPORT OF DR. OSWALDO CRUZ ON PALUDISM IN THE MADEIRA-MAMORE REGION.

Dr. OSWALDO CRUZ, the distinguished Brazilian bacteriologist, who recently made a visit to the Madeira Valley at the invitation of the Madeira-Mamore Railway Company, for the purpose of investigating the sanitary conditions of that region, has returned to Rio and submitted his report, giving the results of his investigations. Doctor CRUZ finds that the laborers engaged in the construction of the railway manifest a great repugnance to the use of quinine. He recommends the adoption of very rigorous measures to compel the laborers to use daily a prescribed amount of quinine; otherwise, he declares, the malarial bacillus will in a short time have acquired such force as to effectually resist the effects of the maximum amount of quinine which it is permissible to introduce into the system.

OFFICIAL EMPLOYMENT AGENCY FOR DISCHARGED PRISONERS.

The Department of Justice of Brazil has issued a decree establishing in the Federal District an official agency for aiding liberated or discharged prisoners, as authorized by the budget law of December 30, 1909. This is in line with other reforms which have been introduced in the prison system of Brazil. The decree has reference only to those who have completed their term of sentence.

ARMY AND NAVAL UNIFORMS TO BE MADE OF CLOTH OF NATIONAL MANUFACTURE.

The President of Brazil has issued a decree declaring that the uniforms worn by the army and naval forces, the police and fire forces, must be made of cloth of national manufacture, and that other equipment, such as blankets, boots and shoes, saddles, harness, belts, and all kinds of leather goods destined for the use of the national troops, must also be of national manufacture.

EXTENSION OF TELEGRAPH SYSTEM.

It has been decided to extend the telegraph lines of Brazil to the confluence of the Agra River with the Paraguay River, thus facilitating communication in the interior of the country.

ARRIVAL OF NEW FLOATING DOCK.

The new floating dock which the Brazilian Government ordered from the Vickers shipyards at Barrow in Furness arrived at the port of Rio on September 29 last. The cost of the dock was £187,700, and the time required for its construction was nine months. The dock is 550 feet 6 inches in length, including the platforms, 136 feet $\frac{3}{4}$ inch wide, and 18 feet 3 $\frac{1}{4}$ inches high. It is able to dock vessels up to 30 feet draft.

MISCELLANEOUS NOTES.

The Sao Paulo Railway-Rio Grande Railway Company has been authorized to purchase, on account of the special fund of 40 per cent established by the Parana Railway's lease, 50 freight cars, of 24 tons capacity. The final surveys and estimates for the section of this railway included between kilometers 215 and 276 of the Sao Francisco line on the left bank of the Rio Negro have been approved.

A bill has been presented to the Sao Paulo Chamber of Deputies, authorizing the Government to negotiate an internal or foreign loan of 25,000 contos of reis, or its equivalent in gold. This sum is required to cover the deficit occurring in the completion of the Sorocabana extensions, and the construction of the Salto Grande do Paranapanema to Port Tibirica branch.

A decree dated September 22, 1910, authorizes the creation at Rio de Janeiro of a Merchant and Ship Brokers' Exchange.

The treaty of commerce and navigation signed at Rio de Janeiro August 21, 1908, between the Governments of Brazil and Colombia, was promulgated by the Brazilian Government September 26, 1910.

The President of Brazil has approved a new code of criminal procedure for the Federal District.

The plans and estimates for the improvements at the port of Fortaleza, State of Ceara, have been approved.

A decree dated September 1, 1910, approves the final surveys for the section comprised between kilometers 75 and 280, of the proposed extension of the Sorocabana Railway, between Salto Grande and the headwaters of the Cervo River.

A decree under date of September 22, 1910, authorizes "The Brazilian Hardwood Corporation," of which mention was made in the November issue of the BULLETIN, to operate in Brazil. This is a United States company, having its headquarters at Berwick, Maine. The company has been negotiating the purchase of extensive timber lands in the State of Bahia.



MARITIME WORKS IN VALPARAISO AND SAN ANTONIO.

Under date of September 7, 1910, the Executive of the Republic of Chile promulgated a law of the National Congress by which the President is authorized to approve, within one hundred and eighty days, upon advice of a commission that he shall appoint for the purpose, the final plans of the maritime works for the improvement of the ports of Valparaiso and San Antonio, said works to be made by contract awarded to the lowest bidder. The total cost should not exceed £3,000,000 for Valparaiso and £1,275,000 for San Antonio.

To carry out these works, the law authorizes the President to negotiate a loan of £4,275,000 at annual interest of 5 per cent and 1 per cent amortization.

This law further prescribes that there shall be submitted within two years the final surveys for the maritime port of Constitucion, and a general scheme for the improvement of the ports of Arica, Iquique, Tocopilla, Antofagasta, Taltal, Mejillones, Chanaral, Coquimbo, Wasco, Los Vilos, Pajudo, Pichilemo, Llico, Bachupures, Tome, Talcahuano, Puerto Saavedra, Lebu, Valdivia, Andud and Puerto Montt.

LOAN FOR THE CONSTRUCTION OF A DOCK.

By virtue of a law of the National Congress promulgated last September, authorization is given for the negotiation of a loan not exceeding 12,720,301.50 pesos of 18 pence for the construction of a careening dock at Talcahuano.

ACQUISITION OF RAILROADS BY THE STATE.

A law of the National Congress of Chile authorizes the Executive to invest £275,000 in the acquisition of the railroad system owned by the Copiapó Railroad Company.

COAL PRODUCTION, FIRST HALF 1910.

According to official statistics just received from Chile, during the first six months of 1910 the following quantities of coal were shipped:

Mines.	Tons.	Mines.	Tons.
Schwager.....	83,678	Total coal shipped.....	241,552
Rojas.....	23,557	Coal transferred by railroad.....	157,064
Buen Retiro.....	16,022	Penco production.....	7,384
Cia. Arauco.....	20,663		
Lota.....	75,095	Total production.....	406,000
Lebu.....	22,537		

GOVERNMENT SAVINGS BANKS.

The "Diario Oficial" of Chile for September 12, 1910, contains the text of a law passed by the National Congress providing that all savings banks already or subsequently established, with subsidy from or under the protection of the Government, shall constitute one single institution to be known as "Caja Nacional de Ahorros" (National Savings Bank), the supreme management of which shall be vested in the council of the "Caja de Crédito Hipotecario" (Mortgage Credit Bank), of Santiago.

The Government shall pay the "Caja de Crédito Hipotecario" an annual subsidy not exceeding 50,000 pesos for each savings bank that it may establish in towns north of Santiago, and not exceeding 40,000 pesos for each one established in towns south of the same city. This subsidy shall be paid until the bank becomes self-supporting.

The amount of an individual deposit shall not be less than 20 centavos nor more than 500 pesos, and the balance of the account of each depositor shall not exceed 2,000 pesos. The total is to be invested in bonds of the "Caja de Crédito Hipotecario."

NITRATE SCHOOL.

A school of nitrate has been established in the Chemical Industrial Laboratory of Iquique, Chile, the course of which is two years. In order to encourage the enrollment and attendance of students, the chief of the laboratory has requested that the Nitrate Propaganda Association recommend to nitrate producers, in filling vacancies, to give preference to the graduates of the school.

PETROLEUM TRADE AND INDUSTRY.

United States Consul ALFRED A. WINSLOW, of Valparaiso, reports that the quantity of petroleum consumed in Chile is increasing very rapidly, as indicated by the following table showing the amount, in tons, imported from the United States and Peru for the last five years. These countries have supplied all but a few hundred tons during the time mentioned.

Year.	Peru.	United States.	Year.	Peru.	United States.
1905.....	12,891	.....	1908.....	46,417	24,908
1906.....	12,926	5,853	1909.....	49,191	61,259
1907.....	25,760	142			

Nearly all the petroleum is consumed by the nitrate works in the north of Chile and on the Tocopilla Railroad. The use of petroleum affected the coal imports for 1909, which were 1,113,993 against 1,311,488 for 1908.

It is evident that there is a great future for this kind of fuel in Chile, and it will pay interested parties to look into the matter. Petroleum can be sold here to better advantage than coal.

TELEGRAPH LINE TO PUNTA ARENAS.

According to a report from the consul of the United States at Valparaiso, the Chilean Government has under consideration telegraphic communication between Valparaiso and Punta Arenas and intermediate points. The wireless system seems to be considered the most practical, owing to the distance and the rugged and bleak country over which 700 or 800 miles of the line must be built.

Mr. C. E. RICHART, Director of Telegraphy in the Chilean Navy, makes a report covering the subject, in which he compares the overland route with the submarine cable and the wireless, to the advantage of the latter system, both in construction and in maintenance. The estimated cost of the wireless line from Valparaiso to Punta Arenas is placed at \$175,194 United States gold, for an area of 1,220 miles, with two stations between the points named. He has also prepared the following table, showing the cost of construction and the esti-

mated annual maintenance charge for a wireless system over the entire Chilean coast from Arica to Punta Arenas.

Stations.	Miles between stations.	Initial cost.	Annual expense.
Arica.....	105	\$11,192	\$3,102
Iquique.....	220	7,299	3,467
Antofagasta.....	220	8,759	3,467
Caldera.....	185	11,697	3,668
Coquimbo.....	189	11,922	3,668
Valparaiso.....	220	2,433	3,668
Talcahuano.....	400	46,477	7,573
Quellon.....	600	64,237	12,775
Punta Arenas.....		61,291	12,775
Total.....	2,139	225,407	54,183

EXPORTS OF CHINCHILLA SKINS IN 1909.

United States Consul WINSLOW, of Valparaiso, reports that during 1909 there were 71,963 chinchilla skins exported from Chile, valued at \$262,664 United States gold by the Chilean officers for customs purposes. The real commercial value of the skins, however, must have been two or three times that sum, since many of the skins sold in the markets of Chile at \$60 to \$70 per dozen, and the average price per dozen paid during 1908 was \$43. France took by far the greater proportion, the United States taking chinchilla skins to the invoiced value of \$64,000.

The new law making it unlawful to kill chinchillas for the next three years in Chile will turn the business entirely over to Bolivia, where a very good class of fur is found. However, according to late information, steps are being taken in that country to reduce the number of chinchillas killed. This animal has been almost exterminated during the past five or six years.

TARIFF REVISION.

A commission is at present studying the tariff question with a view to adopting a more modern schedule. It appears that the ad valorem basis and the growing free list is causing some little concern to the home industries.

TRADE AND INDUSTRIAL NOTES.

The mining industries of Chile employ 60,000 persons, while the railroads furnish work to 65,000.

There are 899 post-offices in Chile for a population of about 3,500,000.

Out of the 22,334 miles of telegraph lines in Chile, the Government own 16,513, a little over 70 per cent of them.

The Chilean merchant marine consists of 156 vessels. The Government maintains 51 light-houses along the coast and in the Straits of Magellan at an annual cost of \$88,731 United States gold.

Plans are out for the new theater at Valparaiso, showing a seating capacity of 2,703.

The salt beds of Chile could supply the world with salt for ages to come. Salt is found in large bodies 99 per cent pure and only needs grinding to be ready for table use.

The Chilean Government has appointed a commission of nine to study the patent laws of Chile and recommend changes to bring them down to date in conformity with the patent laws of the leading countries.

The consumption of nitrate of soda in the world for the first eight months of 1910 amounted to 2,125,232 tons, against 1,718,270 tons for 1909. This breaks the record by many tons. The increase in August amounted to 13 per cent over the same month for last year.

The superintendent of customs at Valparaiso has, in the interest of shipping, increased the hours during which freight may be landed at the custom-house docks and has reduced the time packages must be in the custom-house before they can be withdrawn. This will facilitate the movement of freight.

Work has been begun on the new cathedral in Valparaiso and it is expected that the foundation will be completed before the end of the year, and that the cathedral will be finished by the close of 1912. The cathedral is to be 195 feet long, 162.5 feet wide, including the transepts, with a central dome 130 feet high. It will be of reenforced cement construction, and will cost upward of \$200,000 United States gold.



CUSTOMS REVENUES FIRST HALF 1910.

According to official figures just received from Colombia, the revenues of the custom-houses of the Republic during the first six months of 1910 were as follows:

Barranquilla.....	\$1,738,288.50
Cartagena.....	1,129,996.40
Cucuta.....	179,499.45
Santa Marta.....	65,319.29
Buenaventura.....	407,373.70
Riohacha.....	13,885.25
Tumaco.....	142,484.81
Ipiales.....	209.00
Total.....	3,677,056.40

LIGHT-HOUSE DUES.

A recent resolution of the Department of Finance of Colombia provides that the only vessels which must pay dues for the light-house in Bocas de Ceniza shall be those bound for Cartagena, Puerto Colombia, or Santa Marta, passing opposite this light-house.

NEW INDUSTRY.

A contract has been entered into between the Government of Colombia and Señor RAFAEL M. PALACIO for the establishment of petroleum refineries in the department of Barranquilla.

AGRICULTURAL SCHOOL.

A law recently passed by the Colombian Congress provides for the establishment of an agricultural school and a department of mechanics in the University of Cauca, appropriating therefor the annual sum of \$5,000.

**THE BUDGET FOR 1911.**

A law of the Constitutional Congress of the Republic of Costa Rica, published in "La Gaceta" of October 9, 1910, fixes the expenses for the fiscal year 1911 at 7,360,743.25 colones. To meet these expenses the law provides for an appropriation of 7,580,000 colones, the probable total of revenues, according to the following estimates:

	Colones.
Custom revenues.....	4, 500, 000. 00
Consular fees.....	115, 000. 00
Liquor tax.....	1, 800, 000. 00
Stamped paper.....	60, 000. 00
Stamp tax.....	60, 000. 00
Posts and telegraphs.....	325, 000. 00
Public-land revenues.....	10, 000. 00
Pacific Railroad.....	350, 000. 00
National printing plant.....	10, 000. 00
Public and civil register.....	40, 000. 00
Banana tax.....	225, 000. 00
Miscellaneous.....	85, 000. 00
Total.....	7, 580, 000. 00

The expenditures are apportioned as follows:

	Colones.
Legislative power.....	118, 810. 00
Interior and Police.....	928, 054. 02
Promotion.....	994, 909. 88

	Colonies.
Foreign Affairs.....	106,655.75
Justice.....	312,748.00
Beneficence.....	116,580.00
Worship.....	24,000.00
Public Instruction.....	1,034,845.80
War and Military Police.....	1,079,723.80
Marine.....	35,060.00
Finance and Commerce.....	2,609,356.00
Total.....	7,360,743.25

The surplus of revenues over expenses shall be devoted to the amortization of the public debt.

ABOLITION OF CONSULAR INVOICES.

According to the "Journal des Tarifs et Traités de commerce" (Paris) of September 22, the Consul-General of Costa Rica issues the information that consular invoices from Costa Rica have been abolished by a law of July 18, 1910, passed by the House of Representatives and published in the Official Journal of the country the 30th of the same month. Consequently, Costa Rican consuls will no longer be called upon to legalize invoices.

Henceforth the shipper must send directly to the consignee an original commercial invoice in triplicate, even when the merchandise is admitted free of duty.

These commercial invoices must contain the following details:

(1) Name of the ship, destination in Costa Rica, name of the consignee, articles included in the invoice, date, and the signature of the head of the firm or its legalized representative.

(2) The number of bales, boxes, casks, barrels, etc., must be expressed in figures and in words.

(3) The marks and numbers on each package and its gross weight in figures and words.

(4) The exact name, kind, and class of merchandise must be given.

(5) For wines, the percentage of alcohol must be given according to the Gay-Lussac scale.

When merchandise of different kinds is shipped in one package, each kind must be separated, so that its weight can be compared with that declared in the invoice, and when found correct be calculated proportionally in the package to ascertain the gross weight assignable to each kind of merchandise.

According to the new law, any misstatement detrimental to the treasury which will be found in the request for the withdrawal of the merchandise will be punished by a fine equivalent to twice the duties and by the seizure of the articles enumerated in the said invoice.



THE PRESIDENT'S MESSAGE.

With the convening of the Cuban Congress on November 7, 1910, the first matter of importance taken up was the reading of the annual message of President JOSÉ MIGUEL GOMEZ.

The President begins his message with expressions of regret that on this occasion he must refer to the damage wrought by the cyclones which swept over the Province of Pinar del Rio, Havana, and a section of Santa Clara. He then states what has been done to aid the unfortunate districts.

Reference is made to the special laws passed by Congress during the last legislature. The Department of Agriculture, Commerce, and Labor, he says, has already commenced work on the agricultural school. The Department of Public Works has called for bids for the erection of state buildings, which will beautify the city. And, lastly, the mortgage bank act will soon produce the results which such an indispensable institution is bound to accomplish.

Mention is again made of the necessity of legislative action regarding the large areas of state lands. Some of this land has been illegally occupied. Other lands belonging to the State have been neglected to the point of abandonment, and the failure to collect the taxes ("derechos reales") makes the land wholly unproductive to the Government.

The rise in the price of sugar in England and Scotland, the President says, caused England to purchase several cargoes of Cuban sugar last June. On the other hand, the fact that Cuban sugar was imported into France so impressed the German market that discussion has arisen in Europe as to whether the showing of a preference to a particular market would lead to the entering into a commercial treaty granting a special tariff to sugar, and thus be considered as creating a bounty. This view the President of Cuba could not accept.

The attention of Congress is called to the increased import duty placed by France on tobacco. This increases the duty about 50 per cent.

The President is pleased to inform Congress that the general, provincial, and municipal elections were held throughout the Republic with the greatest order and composure on the part of the citizens.

In regard to foreign relations, the message says that the Department of State has effected an extradition treaty with Venezuela and negotiations are pending for similar treaties with Haiti and the Nether-

lands. The arbitration treaty between Cuba and Brazil is now awaiting ratification, while Great Britain has recently proposed a treaty for the exchange of parcel posts.

Reference is made to the invitations Cuba has received to send delegates to international and national congresses and expositions; and the delegates which have been named for these, as well as the representatives sent to the different centenaries of sister Republics in the past summer, are enumerated.

The consular revenues during the past fiscal year amounted to \$411,209.60, representing a surplus of \$26,209.60 over the estimates.

Speaking of the Department of Justice, the President says that the courts were opened with customary solemnity on September 1. Referring to the municipal courts, the President recommends to Congress that the municipal judges of the third class should receive a salary instead of the small amount allowed them for rental, now that municipal justice is administered entirely free.

Amendment of the present pardon law, in effect since 1870, is urged. The repeal of the law of July 7, 1909, prohibiting the provincial councils from formulating budgets is suggested, and it is recommended that supervision of these budgets be vested in the National Executive.

Cuba's imports and exports have increased considerably, according to the statistics contained in the message. It is shown that during the first semester of 1909 there were imported into Cuba goods to the value of \$42,174,902, while those of the first semester of 1910 amounted to \$48,966,860. The value of the exports during the first semester of 1909 amounted to \$86,321,039; in 1910 the exports increased in value to \$105,646,667, a gain of \$19,325,628.

A corresponding increase is shown in the importation of money.

From April 1 to October 1, the revenues amounted to \$15,900,092.12 this amount with the \$1,036,890.56 received for back dues and the \$6,808,363.13 collected from special revenues, lottery, etc., have served to pay current expenses, expenses created by laws and decrees, and principal and interests on the debts amounting to \$24,600,397.24.

There was a general decrease in the collection of the special revenue tax of \$104,205.47, but despite this, the amount collected shows an increase of \$155,931.31, compared with the collections of the year 1909.

Payments on the interest and principal of the \$35,000,000 loan since May, 1904, to the present time have amounted to \$11,986,686.59; \$510,000 of this amount has been applied to the principal. On the \$16,500,000 loan, interest amounting to \$371,250 has been paid; on the so-called "war indemnity" \$1,444,650; \$285,000 for that of 1897 and \$152,154.50 for 1906.

The national lottery, since its institution a year ago last October has produced \$4,087,165.68 in revenues.

Regarding immigration, the President says that there has been a marked increase, there having arrived 16,617 persons against 15,848 in 1909; of this number 5,911 were immigrants.

In regard to the Department of Public Works, there have been constructed since April 1, 21 kilometers of roads, not counting those of Pinar del Rio, the records of which were lost in the destruction by the cyclone. A résumé of all the general public works constructed is also given. Among those mentioned is the important work of dredging the different ports on the north coast. Appropriations for the work of protecting Sagua from the floods is recommended.

Appropriations are also recommended for the construction of a sewer system in Santiago de Cuba; \$250,696.94 has been spent in the construction and repair of state buildings.

Concerning the Department of Agriculture, Commerce and Labor, the President urgently recommends the adoption of legislation tending to protect the forests. Ten years ago Cuba had 77,172 caballerias of virgin forest and to-day the area is said to have been reduced to 25,000. Amendments to the mining law, now antiquated and full of serious defects, is recommended. Recommendations are made affecting the copyright law and patent regulations, and urging repeal of the royal decree of 1833, now considered archaic and obsolete, which provides the keeping secret of plans and specifications.

The President recommends that Congress authorize the employment of technical agriculturists to point out the defects in cultivation and suggest improvements, such a service to be maintained until experiments are carried out in the practical agricultural schools which are to be erected.

Cuba and Australia rank first as the healthiest countries in the world. This is the assertion that President GOMEZ makes in speaking of the Department of Sanitation and Charities. The rate of mortality continues to decrease, although the appearance of la grippe at the beginning of the year caused many deaths. Tuberculosis and malaria continue to show a decreasing tendency. The creation of a central board to conduct the fight against tuberculosis is pointed out as one of the most important steps taken by the Department of Sanitation.

The Department of Sanitation continues to supervise the sanitary part of the sewer work, and the President states that he is happy to say that the opening of the streets has caused no epidemics.

Vital statistics prepared for 1909 show an increase in two years of 150,879 inhabitants; in this increase are included the immigrants. In 1909 there were 70,167 births and 28,832 deaths in the Republic; these figures compared with those of 1909 show an increase of 4,800 births.

Regarding charities and hospitals, the President reports that these services, maintained by the state, are extremely satisfactory.

AGRICULTURAL AND INDUSTRIAL EXPOSITION.

Under date of October 6 the President of the Republic of Cuba issued a decree authorizing the Secretary of Agriculture, Commerce, and Labor to appoint a committee which shall have charge of the organization of an exhibition to be called "National Exposition of Agriculture, Industries, and Woman's Arts and Crafts," to be officially opened on January 28, 1911.

FOREIGN COMMERCE IN 1909-10.

According to figures just received from the Bureau of Statistics of Department of Finance of Cuba, the foreign commerce of the Republic during the fiscal year 1909-10 amounted to \$242,276,236, exports being valued at \$144,036,697 and imports at \$98,239,539. A comparison of exports and imports of 1909-10 with that of the previous year shows an increase of \$28,399,376 in exports and \$14,382,704 in imports, or a total increase of \$42,782,080. The balance of trade in favor of the Republic in 1909-10 was \$45,797,158.

The monetary movement during 1909-10 was as follows: Imports, \$5,216,588, an increase of \$2,272,052 over 1908-9; exports, \$2,786, or a decrease of \$1,923,760.

THE TERRITORIAL BANK.

The "Gaceta Oficial" of the Republic of Cuba publishes in one of its recent issues the presidential decree authorizing the "Credito Hipotecario Cubano" to establish the Territorial Bank of Cuba in accordance with a law of the Cuban Congress dated July 20 last, and approves the charter and by-laws of this bank.

By virtue of the law creating it the Territorial Bank may engage in the following operations, in addition to such others as may be consistent with its charter: First-mortgage loans on real estate, purchase of outstanding mortgages, loans to municipalities and official institutions, acquisition and discount of state credits due from provincial or municipal governments and from institutions, issue of obligations, bonds, etc., secured by mortgages or otherwise, sale or negotiation of the same or issue thereof as collateral security for loans.

Señor MARCELINO DÍAZ DE VILLEGAS, former Secretary of Finance, has been appointed president of the new bank.

INVOICE REQUIREMENTS.

In order to avoid frauds through the use of forged or false invoices for merchandise subject to the internal-revenue tax, the Secretary of the Treasury of the Republic of Cuba issued a decree providing that all invoices must be signed by the forwarder and must bear the seal of the warehouse.

It also provides that the date on which the merchandise is forwarded must be printed very clearly, and that without this requisite the invoices shall be declared invalid and goods under an invoice not as specified be considered clandestine goods.

DOMINICAN REPUBLIC

WEALTH OF THE FORESTS AND SOIL.

The forests of Santo Domingo are noted for the varied genera and species of their trees, and for the abundance of the vegetation. The forest growth is usually made up of species which are adapted to the soil and atmospheric conditions of any particular region, and these species generally thrive together, although it is not unusual to find areas in which a single species predominates almost exclusively. For instance, at certain elevations and in suitable soil and topographic formation, the species *Pinus Occidentalis* grow exclusively, forming extensive forests which reach to the tops of the mountains.

Of the various species that form the forest wealth of the Republic the only ones which have been cut for exportation up to the present time are the useful trees found scattered throughout the woods near the coasts. Because of the lack of roads, scarcely any of the large trees found in the interior forests have been cut down, unless to supply the necessities of the people living in the vicinity.

In the cities of La Vega and Santiago, near the pine forests, sawmills are in operation which supply lumber for local consumption, but their distance from the coast is such that the owners have not yet considered a more extensive exploitation of the forest. Up to the present time no serious attempt has been made to estimate the quality of the turpentine that may be extracted from these trees and the practicability of its extraction.

There are other sawmills in operation on the coast at Azua, and at the mouth of the River Soco. It would appear that as these are better situated for the exportation of their products they should prove remunerative to their owners, but as they are established in zones from which timber has been continually cut it is now difficult to secure trees that would be profitable to saw, within a reasonable distance from the mills. For these reasons neither pine nor walnut, the former being abundant in the central part of the Cibao and the latter in the western province of Azua has figured until now in the exports of the Republic. It is certain that the value of this pine and walnut timber now standing in the country is much greater than that which has already been obtained and which has yet to be obtained from timber near the coast. The forest resources also include the richest mahogany in the world, much satinwood, *lignum vitæ*, lancewood, etc., besides fustic, logwood, and the fruit of the *dividivi*, which are largely used for dyeing purposes.

The soils of the humid zone in regions where there is an abundant rainfall, or in the valleys of the large rivers, are fertile and well adapted to the cultivation of tropical products. The least fertile areas are those found in the regions where it seldom rains.

Coffee flourishes in the soils on the slopes of the lower mountains and in the high valleys. In these same valleys, as well as at the foot of the mountains, although, as at Samana and at Savanah la Mar, these soils may be near the coasts, they are better adapted to the cultivation of cocoa if they are within the humid zone.

All the wooded parts of the great valley of the Cibao are frequently visited by copious showers, and besides being unsurpassed for the cultivation of cocoa, tobacco also finds there all the elements necessary for its highest development. On the table-lands of the ridges tropical cereals flourish admirably.

Sugar cane finds its most favorable zone in the immense girdle of calcareous lands extending along the south coast of the Republic, and between these lands and the foot of the mountain ranges is the region of natural pastures, the only places where cattle were bred until recently.

In the dry sections, as in that of the province of Monte Cristi, and those of the valleys of Bani, of Azua, and of Neiba, the cultivation of cotton and of the maguey, or American aloe, has been begun with success, but wherever in those regions irrigation of the soil has been practiced, as in Bani and Azua, the land has been devoted to the cultivation of sugar cane. The cultivation of this crop is more reliable where aided by irrigation than it is in the places which are regarded as naturally more suitable for the growing of sugar cane and other crops which also require humidity in order to thrive. This proves that water, even more than the composition of the soil, is an agent of the greatest efficacy in assisting the growth of plants.

PUBLIC DEBT.

The actual debt of the Republic, arising from negotiations in 1908, which had for their purpose the paying off the old debts of the State, and the redemption from results of imprudent concessions, which were affecting the future revenues and hampering commerce, amounts to \$20,000,000 in bonds. These bear interest at 5 per cent per annum and are redeemable ten years from the date of their issue, with a premium of $2\frac{1}{2}$ per cent. The bonds are guaranteed by a monthly allotment of \$100,000, regularly paid from the custom-house revenues to meet the interest and form a sinking fund.

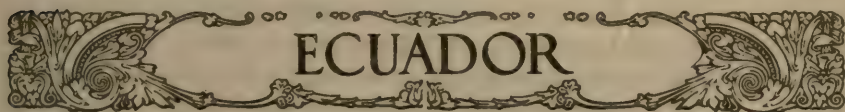
From this transaction the Republic will have left a balance of about \$6,000,000, which will be devoted exclusively to public works,

contributing to the development of the resources of the country and the welfare of its people.

PROPOSED RAILWAY LINE.

The Hon. WILLIAM W. RUSSELL, American Minister in Santo Domingo, Dominican Republic, reports that there is a strong probability that the Dominican Government will soon grant a concession for the construction of a railway northward from the capital to the Cibao Province to connect with the railway that is at present in operation from Sanchez to La Vega.

The Sanchez-La Vega Railway is an English corporation, of which the principal shareholder is Sir ALEXANDER BAIRD. This English company has for some time had under consideration the scheme for the building of this road from the capital, and it is stated on reliable authority that the matter rests at present with the Dominican Government. Sir ALEXANDER BAIRD's son and the chief engineer of the Sanchez-La Vega Railway have lately arrived here from the interior, where they made an extended inspection of the territory through which the proposed line is to pass, and their report is very favorable.



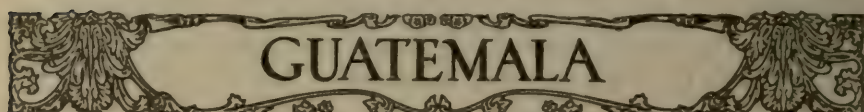
CONSTRUCTION OF BRANCH LINES.

The "Registro Oficial," of Ecuador, for September 26, publishes the text of a legislative decree authorizing the President of the Republic to enter into a contract for the construction of a branch line from Calceta to Ricauarte by way of Canuto and Chone, and another from Solano River to Guayaquil, under the following terms: First, the French Railroad Company shall build from the trunk line of the Bahia de Caraquez-Quito Railway a branch line which, starting from Calceta and passing through Canuto and Chone, shall terminate at Ricauarte; second, the concessionaire shall likewise construct another branch line starting from a point on this railroad from Bahia to Quito, traversing the Daule River and terminating at Guey; third, this latter branch may be constructed on the right or left side of the River Daule, but it must pass near the towns of Balzar, Santa Lucia, and Doule; fourth, if the line be built on the left side of the Daule, the connection with the section terminating at Guayaquil may be established by means of a ferryboat; fifth, these branch

lines are to be considered as extensions of the Bahia de Caraquez-Quito Railway, of which they will constitute an integral part, and the guaranty given by the Government shall cover only 25,000,000 francs, at which cost the whole line is fixed.

RAILWAY FROM PUERTO BOLIVAR TO BIBLIAN.

The Ecuadorian Legislature has recently approved a contract between Messrs. A. HENRY HIGGINSON, an American citizen, and EDWARD MORLEY, a British subject, for the construction of a railroad line which, starting from Puerto Bolivar and passing through the cities of Cuenca and Azogues, shall terminate at Biblian. The traction may be either steam or electricity, and the gauge 42 inches.



INTERNATIONAL BRIDGE.

A treaty was recently signed by Guatemala and Mexico covering the construction of a bridge over the Suchiate River, connecting the two Republics, in accordance with a contract between the two Governments individually, and the Hon. DAVID E. THOMPSON, president of the Pan American Railroad Company. The work of construction has already begun, and the bridge will be completed within a few months.

POSTAL MOVEMENT, FIRST HALF, 1910.

According to official figures just received, the postal movement in the Republic of Guatemala, during the first half of 1910, was as follows:

Incoming mail: Official letters, 146,787; private letters, 821,985; postal cards, 58,257; printed matter, 774,153; official parcels, 6,350; private parcels, 6,008; official registered matter, 18,458; private registered matter, 69,381; business papers, 1,440; samples, 4,463. Total, 1,907,282 pieces.

Outgoing mail: Official letters, 116,012; private letters, 919,222; postal cards, 46,547; printed matter, 938,915; official parcels, 10,116; private parcels, 7,461; official registered matter, 15,313; private registered matter, 60,534; business papers, 1,964; samples, 4,453. Total, 2,120,537 pieces.

HAITI

LEGISLATION ENACTED DURING THE TWENTY-SIXTH CONGRESS.

It is customary for the Haitian Congress at its closing session to issue an address to the people, signed by the members of Congress and published in the "Moniteur," setting forth the legislation enacted during the session.

In the address issued at the close of the Twenty-sixth Congress on August 27 and appearing in the "Moniteur" of September 7 and 10 reference is made to the events preceding the election of President SIMON on December 17, 1908, and to the things accomplished during his tenure of office which have improved the condition of the country.

One of the first acts of the new administration was the effort to reestablish Haitian credit by restoring the national prestige. In pursuance of this policy, part of the nickel currency was withdrawn and the withdrawal of paper money was continued; the Government accounts in the National Bank were audited from the date of its establishment to September 30, 1909; the service of the Bureaus of Receipts and Expenditures was regulated; a school for police officers was established which will, in the future, furnish competent police agents, thus guaranteeing public safety. Mention must also be made of the reorganization of the *Maison Centrale* or School of Arts and Crafts. Here the young men of the country obtain instruction and learn a trade which enables them to gain a livelihood, and in case of need to intelligently defend their country.

Agriculture, the principal source of wealth of the country, will be given a new impetus through the building of the Western, Artibonite and Northern Railroads, and the exploitation on a large scale of banana and other plantations. Flour mills for the manufacture of wheat flour have also been established, and the regular cultivation of tobacco has been undertaken, the Bassin General has been repaired and an agricultural school established. Great attention is also given to the study of industrial agriculture in the School of Applied Sciences.

The capital is to be provided with a new system of waterworks, which will be satisfactory to all concerned. The city of Cayes has not been neglected, and a concession has been awarded for the construction of an iron market, which will fill a long-felt want. The streets of this interesting city are to be repaired, as well as those of Port-au-Prince, the capital, which is now anxiously awaiting the execution of the contract awarded by Congress for electric lighting. An appropriation was granted the executive power for the installa-

tion of the civil tribunal of Fort Liberté, and the port of this city has been opened to foreign commerce.

A law was recently passed for the establishment of a new line of coastwise navigation, so that the various Haitian ports, deprived of the visits of Haitian steamers through the suspension of the fast steamship service, will soon again be the calling ports for new vessels sailing under the national flag.

These acts are among the more important ones passed by the Twenty-sixth Haitian Congress and can not fail to exert a beneficial influence upon the economic progress and development of this fertile island. Many, if not all, of the enactments of this session have appeared from time to time in the MONTHLY BULLETIN.

CABINET CHANGE.

Gen. SEPTIMUS MARIUS, formerly Minister of War and Navy, was appointed Minister of Finance and Commerce on October 29.

CONTRACT FOR THE REORGANIZATION AND EXPLOITATION OF THE DOCK OF BIZOTON APPROVED.

On September 10, President SIMON approved the bill passed by the Haitian Congress granting the concession for the reorganization and exploitation of the iron works and shipbuilding yards of the dock of Bizoton to Mr. DUPUIS NOUILLÉ. Mr. NOUILLÉ is a French citizen and is acting in behalf of a French company known as the "Compagnie française d'exploitation des Forges et Chantiers du Dock de Bizoton."

The company agrees to reorganize the shops of the iron works and ship yards at Bizoton and to introduce several new branches of the machine industry.

It also agrees to repair the railway, enlarge the docking facilities to accommodate vessels of heavy tonnage, and to keep them in good condition.

The foremen of the shops and three-fourths of the workmen must be Haitians.

An apprenticeship school shall be attached to the establishment, the pupils being exempt from military service.

Repairs on government vessels and all other work for the Government shall be executed at the cost price of the raw materials. The charge for ships remaining in dock shall be the minimum price asked in any foreign country, decreased by 50 per cent.

Government work shall have priority over that of private individuals.

All the necessary machinery, materials for shops and yards, tools, and fuel imported shall be exempt from customs duties. But the list of articles ordered must previously be passed upon each month by the navy department.

At the expiration of this contract, the machinery, tools, sheds, and the entire establishment shall become the property of the Government.

If two years before the expiration of this concession neither contracting party signifies its desire to terminate it, the contract shall be considered renewed for another period of ten years under the same conditions.

DISSOLUTION OF THE BANQUE NATIONALE D'HAÏTI AND ESTABLISHMENT OF THE NEW BANQUE NATIONALE DE LA RÉPUBLIQUE D'HAÏTI—FLOATING OF FOREIGN LOAN.

On October 25, President SIMON signed and promulgated the decree rescinding the contract with the Banque Nationale d'Haïti, and providing for the establishment of a new National Bank to be known as the Banque Nationale de la République d'Haïti, and the negotiation of a foreign loan of 65,000,000 francs.

According to the "*Moniteur*," the official journal of Haïti, which publishes the text of these agreements in its issue of October 26, certain modifications were made by Congress in the original contracts signed in Paris last summer between the Banque de l'Union Parisienne and the Haitian Commissioners. In regard to the redemption on sight of bank notes, the original clause provided that this could be demanded only at the bank in Port-au-Prince, but according to the modified article the redemption can also be demanded at all its branch houses and agencies.

These financial measures were referred to in the November issue of the MONTHLY BULLETIN.



MINING IN THE REPUBLIC.

Mr. GEORGE E. DRISCOLL, a mining engineer residing in Honduras, reports, in the "Mexican Mining Journal" for November, that the Republic, although a country rich in mineral wealth, has but one large producing mine at present. This is the famous Rosario mine at San Juancito, located about 7 leagues from Tegicugalpa, the capital of Honduras. This property has been in continuous operation for the past thirty years, and up to the present time has produced over \$16,000,000 in gold and silver. The mine is in a flourishing condition, and recent developments have opened up ore reserves valued at \$3,000,000 or \$4,000,000. The mine is now producing about \$75,000 monthly, and a continued production is assured for an indefinite period. The milling plant is very extensive and valuable and com-

prises a 50-stamp mill, new cyanide plant, several hydro-electric power plants, compressor plant, machine shops, and other similar equipment found in a strictly up-to-date mill. The company is contemplating the erection of a new mill to contain the latest improved appliances for the treatment of ore, and expects to begin work on it in the near future.

A few miles from San Juancito are located a couple of mines which, although small producers, have been in operation for a number of years. These mines are located near the pueblo of Valle de Angeles. One of these, the Socorro mine, owned and operated by a woman, is producing bullion, although its equipment is of the most primitive type imaginable. Another mine in the same locality, the Animas, is said to have large ore bodies of good grade. The ore, however, contains zinc and lead, in addition to its precious metal, and has not been successfully treated up to the present time.

At Santa Lucia, about 3 leagues from Tegucigalpa, is another mining district, the mines of which were discovered and worked years ago, but are now idle. There are two other mines within short distances of Tegucigalpa, equipped with modern machinery and producing on a small scale. One of them, the Aurora, is owned by an American company and has an equipment of four Nissen stamps, concentrators, and cyanide plant. The other mine, the Quemazones, is owned by a Tegucigalpa company, and is equipped with a Huntington mill, concentrator, and smelting plant.

In the other departments of the country mining is engaged in on a small scale in a number of places. Near Danti, in the department of Paraiso, are a number of small gold mines that are shipping bullion regularly, though in small quantities. In the Department of Choluteca a number of American mining men are engaged in developing gold mines near the town of San Marcos de Colon. Two American engineers have secured a number of claims, the ores of which contain excellent values in gold. It is probable that they will erect a mill in the near future. In this department there are a large number of old mines that were worked by the early Spaniards and, according to tradition, were big producers, but they are now idle and unproductive.

Last year a new find was made by natives a few leagues from the town of Pespire, which was visited recently by the writer and found to be a prospect of great promise. One of the veins on the property contains good values in gold from the surface, and in places the outcroppings contain visible gold. An American resident of the country has recently obtained an option on this claim, and is now preparing to actively develop it.

Near the town of Reitoca an American company has for over a year been engaged in opening up an old mine, the San Bartolo, which in the past was a big producer. Recently the manager of this com-

pany secured control of an adjoining property, the Guascicurán mine, and will begin developing that also.

In the opinion of the writer, Honduras offers an excellent field for the investment of capital in the mining industry. The mining laws are extremely liberal. Mining machinery and supplies are admitted into the country free of duty, the climate is excellent, labor cheap, and wood for timbering and water for power are abundant in all parts of the country.



NEW CENSUS OF THE REPUBLIC.

Work on Mexico's census was completed on October 27, 1910, under the supervision of the Director-General of Statistics. The compilations of the different States and municipalities are not yet finished, but it is expected that they will be ready for official announcement within a short time.

It is intimated that the total population of the country will exceed 16,000,000 people, an increase of nearly 4,000,000 during the last ten years, the calculation being based on the last census.

Complete returns for the Federal District show the following comparison of its present population with that of 1900:

	1910.	1900.
Mexico City.....	470,659	368,898
Municipalities.....	248,403	172,268
Total for Federal District.....	719,062	541,166

ORIGINAL ACT OF MEXICAN INDEPENDENCE.

According to a late number of the "Nouveau Monde," of Paris, the Mexican Government, in spite of exhaustive research and inquiry, has until recently been unable to locate the original act of Mexican independence. It is now reported that a Spanish artist residing in Iquique, Chile, has it in his possession, as well as a sword which belonged to ITURBIDE and a shield of MONTEZUMA. This information was received at the Mexican legation in Santiago from the Mexican consul at Iquique and immediately communicated to the Minister of Foreign Affairs of Mexico, who ordered that a thorough examination be made of the report, and if it be found that the document in possession of the Spanish artist at Iquique is authentic, the Government should spare no expense in obtaining possession of this priceless manuscript.

NEW LIGHT-HOUSE IN VERACRUZ.

A new light-house, known as "Benito Juarez," has been established in Veracruz. It is located in the high tower of the General Bureau of Light-Houses

Direct monthly steamship service has been established between Veracruz and Tampico, Mexico, and Buenos Aires, Argentina. It is expected in the near future to have sailing twice a month. The steamship company is known as the "Lloyd Mexicana."

COLOSSAL ELECTRIC-POWER PROJECT.

One of the recent issues of the "Mexican Herald" publishes a report from Culiacan, Sinaloa, announcing that a gigantic electric-power project, covering an area of country 1,200 miles long by 150 to 200 miles wide, and recently organized on the west coast of Mexico, promises to revolutionize mining, agriculture, manufacturing, transportation, and lighting in all this great section extending from Guaymas to Santiago.

Plans for the beginning of construction work on three enormous dams on the Mayo, Humaya, and Santiago rivers, all flowing into the Pacific Ocean, have been completed by the Mayo River Power and Land Company, a corporation composed largely of Colorado men. The three plants, it is estimated, will cost \$6,000,000; \$500,000 of the bonds of the company have been underwritten in the United States, and this money will be used to put the first plant into operation.

The project itself is so gigantic as to appear almost incredible, but concessions have been granted, money secured, and all plans prepared for the immediate inception of the work. The company claims to have secured the sole power rights on the Mayo, Humaya, and Santiago rivers from the Government, and owns 115,000 acres of agricultural, mineral, and timber lands. Its concessions and holdings are valued at \$7,500,000 gold.

One of the most interesting features of the project is the fact the contracts have been closed for the furnishing of electric power to the Harriman lines in Mexico. This is to say that the Southern Pacific in Mexico is planning to electrify some, at least, of its lines. Two years have been consumed in the negotiations with the Mexican Government and with the landowners from whom property was secured.

The transmission lines will extend from Guaymas to Santiago, 1,200 miles. Twenty cities along the west coast, some of which have horse-car lines, will be enabled to use electric power. Current, also, will be available for mines, pumping stations, haciendas, and narrow-gauge railways which lead to the more isolated mines. Three hundred thousand horsepower will be generated when all three plants are in full operation.

The power project on the Rio Mayo includes a dam 170 feet high, 260 feet long at the top, and with a reservoir capacity of 10,280,000,000 cubic feet.

The Rio Humaya project includes a dam 223 feet high, 708 feet long at the top, with a reservoir capacity of 11,384,500,000 feet. The Rio Santiago will have a dam 215 feet high, 145 feet long, impounding 9,360,000,000 cubic feet of water.

The cost of the transmission lines will be \$2,000,000, which is included in the \$6,000,000 estimate of the cost of the plants, as given above.

The construction of this system means a great deal for the development of the west coast of Mexico. Coal costs at times as much as \$9.50, gold, a ton, and to some of the mines it has to be packed in on the backs of donkeys. Sufficient contracts for power are said to have been closed to pay 1.3 per cent on the entire capitalization.

EXTENSIVE RAILROAD PROJECTS IN ZACATECAS.

The American Consul at Aguascalientes reports that several new projects are under way for railroad extensions in that Zacatecas. One company, composed of French capitalists, has been organized to build a railroad from Estacion Comacho to Mazapil and Concepcion del Oro.

An English company has completed a survey and made favorable report on a railroad running from Zacatecas to Jerez, Villanueva, Colotlan, and Tlaltenango.

Work will soon commence on a railroad from Gutierrez to Sombrete and Chalchuite, thence to Rio Grande, and finally extended to Durango. This company will be financed with American capital.

The people and governor of Zacatecas are bringing much pressure to bear for the construction of a line from San Luis Potosi to Zacatecas.

RAILROAD STATION AT SAN LUIS POTOSI.

The National Railways of Mexico (Ferrocarrile Nacional de Mexico) contemplates the erection of a passenger station and repair shop at this point. The repair shops will employ some 1,200 men.

RECENT RAILROAD CONCESSIONS.

The issues of the "Diario Oficial" of Mexico for August 23 and 24 and September 6 and 13 publish the texts of the following concessions:

To the "Compañía de Tranvías de Mexico" for the construction and exploitation of an electric railroad in the Federal District, and the States of Mexico and Puebla, starting from Ixtapalapa, in the

District, and terminating at Puebla; and another line from Santa Fe in the Federal District, to Toluca, State of Mexico.

To the National Railroad Company of Mexico for the construction of a line from Penjamo, State of Michoacan, to Zacapu, in the same State. This line may be extended southward to Ario, or to Ajuno, a station on the National Railroad.

To Francisco Sanchez Noriega for the construction and exploitation of a railroad between the States of Mexico and Morelos, starting from Tomacoco, passing through Amecameca, and terminating at Xochitepec. The line may be extended to Totolapam, State of Morelos.

FREE IMPORTATION OF MAIZE.

By a presidential decree the importation of maize through the ports of Progreso and Campeche shall be exempt from customs duties until December 31, 1910.

NEW WIRELESS STATION.

The Government of the Mexican Republic has ordered the establishment of a wireless telegraph station at Bacochibampo, near Guayinas, to replace the Cabo Haro Station, which was destroyed by fire.

MINES IN OPERATION.

Recent statistics published by the Mexican Government show that there are in the Republic 6,987 mines in operation and that 5,000 of these are in a state of productive development. Of the total capital invested in mines, 50 per cent is American, and the rest is represented by Mexican, French, and English interests. The mineral lands of Guanajuato have proven the most attractive, and during the last eight years about 20,000,000 pesos have been invested in that State alone. The record for production is held by the "Valenciana" mine, whose output of gold and silver, to date, is valued at 350,000,000 pesos. The largest dividend declared this year was that of the "Esperanza" mine, 108,000 pesos; since its incorporation this mine has yielded 10,216,750 pesos. Another mine paying a large dividend this year was "Lucky Tiger," which, to date, has paid out 107,250 pesos. During the first quarter of the present year 10 companies have declared dividends totaling 514,594 pesos, or a total of 19,150,228 pesos since the date of their incorporation.

CONCESSION FOR ZINC-SMELTING PLANTS.

The "Diario Oficial" of October 10, 1910, contains the text of a contract between the Minister of Promotion and Engineer, FRANCISCO SALAS LOPEZ. Under the terms of this contract the latter

agrees to establish, in the Republic, a zinc-smelting plant and a factory for the production of ingots of crude and refined zinc, zinc powder, thread, sheets, and oxide; for this purpose the concessionaire is to invest no less than 200,000 pesos during the life of the contract.

The concessionaire may also establish similar plants at other points, provided he invests in each one at least 50,000 pesos in addition to the original 200,000 pesos.

THE GUAYULE INDUSTRY.

The discovery of the guayule plant as a producer of rubber was made less than ten years ago, although the ancient Mexicans extracted the juice from its roots to make balls for children. They did not, however, realize its valuable qualities.

There is much speculation as to the early discovery and practical application of guayule. Mention is made of a Mexican young lady whose extensive experiments did much to arouse an interest which subsequently led to the discovery of the industrial value of this plant. The rapid growth of this industry, however, may be said to date from 1902, when the first commercial transaction in guayule rubber was consummated. Since then producers of this product have amassed considerable fortunes, while the value of their plantations has become vastly enhanced.

Scarcely any industry in Mexico has experienced so rapid a development as that of guayule rubber. Since its appearance on the market its price has advanced amazingly. In 1903 it sold for \$5 to \$7 per ton; only four years later, in 1907, the price had risen to \$50 per ton, and to-day its value is approximately \$100 per ton.

The plant grows along the northern frontier of Mexico, especially in dry and mountain lands. It reaches an average height of 25 inches, weighs about 20 ounces, and its average thickness at the base is $11\frac{1}{2}$ inches. In proportion to its size, each plant yields 10 per cent of pure rubber. The Mexican guayule does not produce the same milky sap common to other rubber plants.

In treating guayule, Mr. THEODORE WHITTELEY suggests three processes, to wit:

First: The alkaline process, by which the plant is boiled in a caustic alkaline solution;

Second: The dissolution, in which the rubber is extracted by means of carbon sulphur, or some other dissolving substance; and

Third: The mechanical process.

These processes, properly applied, yield rubber of different qualities and colors, and are selected according to the ultimate uses of the product.

The most valuable guayule plantations are found in the vast deserts of Coahuila, a State whose wealth was made fabulous by guayule production. The States of Nuevo Leon, Chihuahua, and Tamaulipas also produce guayule in large quantities.

NEW INTERNATIONAL BRIDGE.

The National Railways of Mexico have recently inaugurated a new international bridge over the Rio Grande, connecting Matamoros, State of Tamaulipas, Mexico, with Brownsville, Texas.

THE COTTON INDUSTRY IN THE REPUBLIC.

The Department of Finance of Mexico has recently published statistics on the textile industry of the Republic for the fiscal year 1908, from which the following significant figures are quoted:

Mills.	Number.	Machinery active.	Number.
Spinning.....	10	Spindles:	
Spinning and weaving.....	10	Old style.....	82,630
Spinning, weaving, and printing.....	9	Modern.....	643,648
Printing.....	6	Total.....	726,278
Hosiery and knitting.....	13		
Total.....	146	Looms:	
In operation.....	129	Old style.....	3,401
Shut down.....	17	Modern.....	21,926
		Total.....	25,327
		Printing machines:	
		Old style.....	9
		Modern.....	31
		Total.....	40

Mill production.	Number.	Value.
		<i>Pesos.</i>
Pieces of cloth (each piece 30 yards), gray or prints.....	13,887,911	
Yarn, kilos.....	1,952,612	
Sales reported.....		43,370,012

IMPORTS.

Raw cotton.	Kilos.	Value.
		<i>Pesos.</i>
Gross weight.....	8,097,947	3,626,942
Egyptian.....	106,941	69,550
Carded cotton.....	18,953	17,010
Cotton waste.....	251,291	30,766
MANUFACTURES.		
Cotton yarns.....		2,252,198
Cloths.....		4,866,511
Manufactures.....		2,229,464

EXPORTS.

Raw cotton.....	165,806	84,190
Cotton waste.....	424,173	97,613

Cotton.	Bales of 500 pounds.	Cotton.	Bales of 500 pounds.
Consumed by the mills.....	156,237	DETAILED CONSUMPTION, BY STATES—con- tinued.	
IMPORTS.		Mexico.....	8,008
American.....	33,742	Puebla.....	47,200
Egyptian.....	455	Tlaxcala.....	8,500
Estimated consumption of Mexican.....	123,000	Veracruz.....	32,493
DETAILED CONSUMPTION, BY STATES.		Durango, Hidalgo, Queretaro, San Luis Potosi.....	6,616
Coahuila.....	5,620	Chihuahua, Nuevo Leon, Sonora.....	7,112
Distrito Federal.....	15,016	Colima, Chiapas, Guerrero, Michoacan, Oaxaca, Sinaloa, Tepic.....	10,959
Guanajuato.....	7,700	Total.....	156,237
Jalisco.....	7,013		

NEW VEGETABLE WAX.

The "Moniteur Officiel," of Paris, reproduces in its issue of October 6 an article published in the *Bulletin Commercial* of Brussels in regard to a new vegetable wax. This is obtained from a small plant that grows wild in the northern part of Mexico, side by side with *yule*, the rubber tree of the temperate lands, and called *Candelilla*, or little candle, by the natives. Known from time immemorial to the Mexicans who gave it this name on account of its form and composition, this plant has for no apparent reason been neglected by agriculturists and business men. It contains from 6 to 8 per cent of vegetable wax, which has been mistaken for beeswax by chemists in the United States, and which is superior to *carnauba* wax. Samples of candelilla wax were sent to a commercial firm in London and immediately an order for 50 tons a month was received. Consequently it is probable that candelilla will furnish the raw material for a new and important Mexican industry. A company has already been organized for the manufacture of vegetable wax, another company is being organized, and the processes for its extraction have been patented.

Candelilla is found in all of the northern part of Mexico, but rarely in sufficient quantities to warrant its exploitation on a large scale. However, some hacendados of the State of Coahuila assert that hundreds of thousands of tons are to be found on their property, and it is only necessary to find new markets for a product of comparatively restricted consumption. The plant grows quickly and without any care. When it is cut close to the ground it grows up again at the end of one or two years and is easily propagated.

The extraction of the wax offers little difficulty. The plant is submitted to a slight cooking process and the wax obtained by decantation. By this process 6 per cent of wax is obtained about 90 per cent pure.

The promoters of the new enterprise expect to realize large profits as the expense of its manufacture is slight and the wax sells for 3 francs a kilogram in Europe.

TRADE AND INDUSTRIAL NOTES.

The government of the State of Sinaloa is experimenting with the cultivation of bananas in this district. It has recently procured 20,000 "heads" or roots of the "Roatan" banana and distributed them among the principal ranch owners.

Interest is being manifested in the possibility of manufacturing a fiber for commercial uses from the Palmillo and Pochote plants growing in Sonora.

A consular report from Guadalajara gives this interesting table of the distribution of foreign capital in that district:

	American.	French.	German.	English.	Total.
Mines.....	\$4,000,000			\$1,000,000	\$5,000,000
Merchandise.....	500,000	\$2,000,000	\$600,000		3,100,000
Banks.....	250,000		250,000		500,000
Manufactures.....	500,000	1,000,000	250,000		1,750,000
Miscellaneous.....	200,000	200,000	200,000	50,000	650,000
Total.....	5,450,000	3,200,000	1,300,000	1,050,000	11,000,000

The use of acetylene gas produced from calcium carbide is increasing quite rapidly throughout Mexican cities for lighting purposes as a cheaper substitute for electricity.

In accordance with the new mining law, all mining claims in Mexico acquired before January 1, 1910, must have monuments erected before January 1, 1911, marking their boundaries.

ALONZO B. GARRETT, the American consul at Nuevo Laredo, reports that there is a profitable opportunity for establishing canning factories for preserving mangoes, guavas, and kindred tropical fruits not adaptable to shipment in their natural state. These fruits are indigenous to southern Mexico.

NICARAGUA

MINING AND AGRICULTURAL CONDITIONS.

Mr. T. LANE CARTER publishes in the "Mining World," Chicago, for November 5, 1910, an exhaustive and interesting article on mining conditions in Nicaragua, in which he speaks, incidentally, of the agricultural possibilities of the country. This article throws an additional light on that Republic which should be given as wide a publicity as possible.

After giving a brief geographical sketch of the Republic, the author says:

Mining in Nicaragua did not start yesterday. Many references are made to the output of gold in the early Spanish records. Strange to say the adventurers devoted their time and attention to western Nicaragua, and it was not until recent times that any attention was paid to the mining possibilities of eastern Nicaragua. During the forties in California many miners crossed Nicaragua on the way to the Eldorado in the West. Some were so attracted by Nicaragua that they remained, and renewed activity was displayed in mining. In the Province of Chontales several small mines were opened and have been producers of gold ever since.

Active mining in eastern Nicaragua really commenced about 1888 to 1890. At first the miners engaged in placer mining, but Nicaragua has been rather disappointing as a placer country. So far it does not promise much as a dredging country. Nearly all of the gold in eastern Nicaragua is now obtained from mills of some kind, as Huntington, stamps, etc. In spite of the obstacles and difficulties Nicaragua sends out about \$1,000,000 worth of gold annually.

While gold mining has been slow in developing, other industries have gone forward. In eastern Nicaragua the banana industry is the most important. As yet only a small area of land is under cultivation. All the bananas shipped from Nicaragua to New Orleans come from Bluefields and environs. Going up the Escondido River from Bluefields to Rama one sees banana plantations on each side of the river.

Nicaraguan coffee is considered as good as any in the world. No coffee is produced on the east coast, the plantations being on the west coast and in the interior. At present most of the coffee is consumed in the country. The small amount shipped out goes through the port of Corinto, on the Pacific Ocean. Coffee will be of increasing importance in Nicaragua.

Rubber has been an important product of export. It is gathered from trees, not from vines, as in Central Africa. So careless have the natives been in cutting these trees that thousands of them have been killed. The rubber cutters are Indians, and in most cases they "bleed the trees to death." At present most of the rubber from Nicaragua is sent to Russia and is used in the manufacture of rubber boots and shoes. The high price of rubber has stimulated the trade of late.

So far the cultivation of rubber trees in Nicaragua has not been very successful. There is no reason why the cultivation of rubber and mining should not be carried on together. It requires about seven or eight years for the rubber trees to give results.

Nicaragua is peculiarly adapted to sugar cane, which is planted once every eight years. It grows up like a weed, and requires little or no attention. In the interior of Nicaragua there is a successful company producing all the sugar consumed in the country. On account of the tariff the market in the United States would be difficult to enter, but in Europe sugar from Central America can be successfully marketed.

The grade of chocolate produced in Nicaragua is of the highest quality. Some of the largest chocolate manufacturers of Europe have plantations in the interior of Nicaragua.

The district of Chontales is a great cattle country. There cattle grow wild and need scarcely any attention. Some day when steers enter the United States free of duty, fortunes will be made by importing cattle from Nicaragua.

In the forests are valuable hard woods, such as mahogany, etc. Thousands of feet are shipped to Europe and the United States.

Mr. CARTER then deals at length with the mining laws, conditions of the country in general, the disadvantages and drawbacks, transportation facilities, and labor conditions; and after predicting that

the future development of Nicaragua will be much like that of Mexico, he concludes the article as follows:

I would not minimize the difficulties of the country for the mining engineer, but as I have seen so much of the possibilities of Nicaragua, I have been forced to believe in the future of the country. I feel sure that if the right men get into Nicaragua they will make big fortunes. The Republic is no place for timid, shrinking people—who should remain at home and buy bonds—but for the bold spirits who have money behind them and know their business, Nicaragua mining offers great opportunities.

DUTY FREE ARTICLES.

By a decree of October 5, 1910, the President of the Republic of Nicaragua has declared the following articles exempt from import duties: Cocoanut oil, caustic soda, silicate of soda, and soda ash.



BANKING IN THE REPUBLIC.

The annual report of the United States Consul-General at Panama City contains, among other interesting and valuable information, a report on banking operations on the Isthmus. It points out the fact that the establishment of foreign banking institutions in Panama dates from the time of its secession from Colombia, or shortly thereafter. Formerly banking operations were conducted by private firms exclusively, who, in the absence of organized competition, were enabled to make handsome profits in exchange and high rates of interest on money loaned. The organized banks are encroaching upon the field once occupied by the private firms, and it may be only a question of time when the latter will no longer be able to compete against the former. No laws have been enacted by the Government of this Republic governing banks or banking operations, and therefore the Colombian laws are still in force. The next National Assembly will probably enact laws to meet local banking conditions.

There are five banks here—the International Banking Corporation, with branches at Panama, Colon, and Empire; the Panama Banking Company, exchange banks; the Government Bank (Banco Hipotecario y Prendario), a mortgage bank; the Compañía de Prestamos y Construcciones, a native building society which does some banking business; and the American Trade Developing Company, called "the bank," which, while a private concern, does a loan business, generally in small amounts at high rates of interest.

Conditions for banking are not, on the whole, unusually favorable, the volume of exchange being limited, and owing to competition profits on such operations must be kept at relatively low figures. A few years ago the usual rates for discounting loans were 2 to 3 per cent per month. The advent of banks has brought down the rate to 7 to 9 per cent per annum. Hitherto, for sufficient reasons, the people on the whole did not hoard their money. Those few who wished to save money contracted the habit of hiding their unspent earnings, and in that way have kept a considerable amount of money out of circulation, and undoubtedly a large proportion of it will never be recovered. Now, however, the poorer classes are enabled, through the organization of savings departments in foreign banks, to deposit their small savings with these institutions, which allow a liberal interest, and thus encourage the habit of saving. There is on deposit in savings accounts not less than \$1,000,000. The total volume of exchange offered in this market does not exceed \$2,000,000 a month, exclusive of post-office orders. The total deposits in all the banks probably reach \$3,000,000 and the total loans about \$2,000,000.

HAT-MAKING SCHOOLS.

The "Gaceta Oficial" of Panama, for October 1, 1910, publishes an executive decree establishing two schools in the districts of Penonome (Cocle Province), and La Mesa (Veraguas Province), for the practical teaching of the manufacture of "toquilla" straw hats.

PUBLIC INSTRUCTION.

A report from United States Consul-General SNYDER, of Panama City, states that the public school system of Panama is divided into primary, secondary, industrial, and professional, and is under the direction of a superintendent of public instruction of the National Government.

The schools are classified in five grades for the purpose of paying the salaries of the teachers, as follows: In the cities of Panama, Colon, and Bocas del Toro the salaries range from \$65 to \$85 per month; in David, \$50 to \$75; in county seats of the other Provinces and in many other districts, \$40 to \$50; and in urban schools, \$30 to \$35. All teachers in the rural schools receive \$25 per month.

There is in Panama City a national school of music and elocution; one of arts and trades into which has been incorporated that of indigenes; a national museum, and a municipal library. The executive power is legally authorized to establish in the capitals of the Provinces a school for the manufacture of hats, high schools for both sexes, a school of practical agriculture, and kindergartens. The State bears the expense of the education of 62 students, 47 boys and 15 girls, in the colleges of the United States and Europe.

The Government has secured permission from the United States to establish at different places in the Canal Zone, which may be agreeable to the United States, schools for both sexes of Panamanians. These schools will be taught by natives, and the expenses paid from the national treasury. In all the colleges and official schools of the capital and those of the cities of Colon, Bocas del Toro, and David the English language forms a part of the course of instruction, and progress in this respect is very marked.

There are 238 public schools in the Republic, having a total enrollment of 14,305 pupils and 396 teachers. In Colon there are 7 private schools, with an enrollment of 411 pupils.

LUMBERING AND MINING.

While the lumber industry of the Isthmus is in its infancy, Consul-General ALBAN G. SNYDER says that Panama's resources in this respect are large and varied. Several American companies, such as the Panama-American Land and Lumber Company, the Bayano Lumber Company, and others have recently entered the field and made large purchases, and sawmills have been erected.

No new mining developments took place in Panama during 1909. The Darien Gold Mining Company maintains its average output, and has the only mine of any importance in the Republic, although in the Provinces of Veraguas and Coclé there are several undeveloped mines.

TELEGRAPHY IN THE REPUBLIC.

There are 32 telegraph offices in the country, one or two short extensions being completed in 1909. The United Fruit Company proposes establishing a wireless station at Bocas del Toro. It is said that the Government proposes to establish stations, which in conjunction with the station of the United Fruit Company would completely unite the Republic by wireless. A number of new post-offices have been opened, making a total of 96. Outside of Panama and the line of the railroad nearly all mail is transported by water.



COMMERCE WITH THE ARGENTINE REPUBLIC IN 1909.

According to the report of the Argentine Consul-General at Paraguay for 1909, the total imports from Argentina to Paraguay aggregated 34,931 tons, with a valuation of \$175,072 gold. The exports to Argentine ports totaled to 52,234 tons, valued at \$1,439,828.

Imports to Paraguay from other ports amounted to only 9,977 tons, while corresponding exports totaled 18,675 tons. The principal exports to Argentine ports were: Quebracho, \$540,335; timber, \$403,678; yerba, \$200,183; tobacco, \$148,449; and mandarine oranges, \$3,066. The fresh-vegetable trade is being rapidly developed, and as soon as Paraguayan railways are connected with the Argentine lines considerable impetus will be given to this trade.

ASUNCION AS A SOUTH AMERICAN DISTRIBUTING CENTER.

Consul CORNELIUS FERRIS, Jr., reports that, as an interior point, Asuncion is unique among South American cities. Its geographical position should make it a distributing center, not only for the rich interior of Paraguay, but for the great hinterlands of Brazil and Bolivia, which depend upon the Paraguay River for communication with the outside world. The port of Asuncion is always a scene of activity, more than 1,000 vessels a year entering the harbor.

Notwithstanding the general depression, commercial travelers, who are regular visitors, note a steady improvement in the country, speak encouragingly of the future, and almost without exception are willing to grant long credits.

According to a report from CORNELIUS FERRIS, Jr., United States Consul at Asuncion, the Republic of Paraguay offers a market for a wide variety of commodities, particularly office equipment, agricultural implements, hardware articles, printing materials, house furnishings, chemical and drug preparations.

THE STUDY OF ENGLISH IN THE REPUBLIC.

United States Consul CORNELIUS FERRIS, Jr., of Asuncion, Paraguay, reports that the study of English is assuming an importance in the capital of the Republic which will pave the way to closer relations with the United States.

Public school authorities are considering making English a part of the regular course of study in one of the primary schools, as well as giving it a regular place in the higher institutions of learning, where it has been studied in a desultory way during the past few years. It has already been introduced in the government school of naval mechanics. Among the various public and private schools and institutions under government patronage there are at present half a dozen classes in English.

Besides instruction in the different schools there are now 10 to 20 persons taking lessons individually and in private classes in Asuncion. In all there are about 125 pupils, from school children to adult business and professional men, studying English this year. Heretofore the instruction has shown no practical result, but the subject has

become especially popular within the past ten months, so that with the beginning of the next school year, in March, 1911, good work may be expected.

THE PARAGUAY CENTRAL RAILWAY.

At the present time the Paraguay Central Railway Company is in the midst of an important transition. Owning a purely local line 234 miles long, from Asuncion to Villa Encarnacion, on the northern side of the River Parana, it is now becoming part of a through route from Asuncion to Buenos Aires, in conjunction with the Argentine Northeastern and Entre-Rios Railways, a total distance of 945 miles. In the meantime it is gratifying to note that in spite of some dislocation of the traffic, owing to the change of gauge from the broad to the 4 feet 8½ inches on the two Argentine lines, the Paraguay Central Railway enjoyed a substantial increase in revenues for the twelve months ending June last. In the preceding year decreases were shown in the gross and net earnings, due to political reasons and unusually violent fluctuations in the gold premium; but the shrinkages of 1908-9 were more than offset by the succeeding prosperous period, as indicated in the report of accounts recently issued:

Year to June 30—	Gross receipts.	Working expenses.	Net earnings.
1905.....	£41,955	£26,728	£15,227
1906.....	55,208	32,639	22,569
1907.....	73,198	48,761	24,437
1908.....	86,408	50,827	35,581
1909.....	77,446	45,029	32,417
1910.....	97,126	48,789	48,336

From this statement it will be seen that in the past year there was an increase of £19,680, or 25.4 per cent, in the gross receipts, and an increase of £3,760, or 8.3 per cent, in the working expenses; thus making an increase of £15,919, or 49.1 per cent, in the net earnings.

ELECTRICITY IN THE REPUBLIC.

Under improved conditions in Paraguay electricity should be one of the first demands, there being in the country at present nothing in the line except about 300 telephones and a few lights.

The Falls of the Yguazu and of Guaira, in the extreme eastern and northeastern limits of the Republic, which are said to be greater than Niagara, are too remote from industrial fields to offer an opening at present for electric power, but when it is considered that no coal is found in this part of South America, the future demand for electric-power installation in connection with these two power sites should not escape the notice of American manufacturers. The proposed

Trans-Paraguayan Route includes the Falls of the Yguazu. This railroad is to connect Asuncion with San Francisco, an Atlantic seaport on the coast of Brazil, almost east of Asuncion. Although this route is now only a project, its realization within four or five years is regarded as a certainty by the officials of the only other railroad in the country, and it is said the falls will be utilized for electric-power purposes.



THE SIXTH PAN AMERICAN MEDICAL CONGRESS.

Considerable interest is being manifested in the next Pan American Medical Congress, to be held in Lima, Peru, in 1911.

The first of these congresses took place in 1893 at Washington, the capital of the United States, and was largely attended. The second was held in the City of Mexico, and was also well attended. The third, in Havana, was a most successful congress. The fourth meeting, at Panama, while very important as far as the character of the scientific work and the entertainment was concerned, lacked the number of delegates that had been present at former congresses. The fifth congress was held in Guatemala, and, like the preceding one, consisted of but a small number of delegates, although the most representative men from the different North and South American Republics were present. The Guatemalan Congress voted to hold the sixth congress in Peru.



COMPETITION FOR NEW THEATER INVITED.

According to the "Moniteur Officiel du Commerce" of October 20, the municipality of San Salvador has invited competition for building a new theater in this city, to have a seating capacity of 1,200. The structure is to be equipped with the latest modern improvements and appliances, and to cost between 800,000 and 1,200,000 francs. All materials imported for use in this building to be exempt from duty.

Two prizes of 8,000 and 4,000 francs will be awarded for the two best plans submitted. Designs, plans, and estimates should be received by the "Secretario de la Junta de Fomento," 92 Avenida Norte, San Salvador, before March 15, 1911.

NEW TRADE-MARK LAW.

The new trade-mark law, passed by the National Legislative Assembly on May 11 and signed by the Executive on June 15, has been received by the Pan American Union and is now on file in the Columbus Memorial Library.

EXPORT TRADE FOR THE FIRST SIX MONTHS.

A report from THOMAS EWING DABNEY, the United States Consul-General at San Salvador, places the exports of Salvador for the first six months of the present year at \$5,696,706.85. The greater portion of the products of this country were exported to countries in the following order:

Country.	Value of exports.	Country.	Value of exports.
Germany.....	\$1,410,693.10	Austria-Hungary.....	\$388,035.33
United States.....	1,358,868.85	Great Britain.....	352,843.73
France.....	1,043,402.71	Spain.....	164,907.21
Italy.....	584,312.60		

The leading articles of export and their values are given as follows:

Articles.	Value.	Articles.	Value.
Coffee.....	\$4,661,440.98	Lumber.....	\$3,773.37
Gold, silver, lead.....	560,569.64	Rice.....	3,312.23
Sugar, brown sugar.....	222,379.47	Deerskins.....	2,837.63
Indigo.....	107,936.72	Hat palms.....	2,723.21
Balsam and balsam seed.....	39,187.97	Miscellaneous.....	23,247.92
Cattle, hides.....	36,167.46		
Rubber.....	23,491.58	Total.....	5,696,706.85
Tobacco, manufactured and leaf.....	9,638.67		

ADDITIONAL SHIPPING FACILITIES.

The Salvador Railway Company (Limited), at present operating a steamship line between Acajutla, Salvador, and Salina Cruz, Mexico, has announced the extension of its service to Libertad, Triunfo, and Union. The *St. Denis* has been chartered for the local runs, while the *Salvador* will ply, as heretofore, between Acajutla and Salina Cruz.



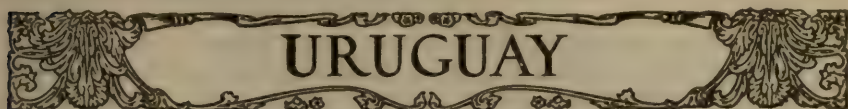
IMPROVED INSPECTION SERVICE FOR NEW ORLEANS.

An important innovation in handling first-cabin passengers from Central American countries to the United States via New Orleans, has just been announced by the Commissioner-General of Immigration, DANIEL J. KEEFE.

Under the old arrangement, all aliens were inspected by the Marine-Hospital Service at quarantine station and again for the Immigration Service when the boat reached the docks at New Orleans. If the vessel happened to arrive at the city wharves after nightfall, passengers were held under police guard until the following day, as the immigration regulations prohibit medical inspection after nightfall.

The new plan, however, provides for the double inspection at quarantine station of first-cabin alien passengers upon those vessels which are likely to arrive at New Orleans between the hours of sunset and 12 o'clock midnight, thus enabling travelers to come ashore immediately on reaching the city.

This arrangement will be especially appreciated by Central American bankers, planters, business men, and other high-class citizens, traveling first cabin, who were formerly subject to the annoyance and mortification of having to spend the night aboard the vessel.



AN INTERESTING LECTURE ON THE REPUBLIC.

On October 11, 1910, Mr. HERBERT P. COATES, one of Montevideo's leading merchants, delivered an interesting lecture on the trade of Uruguay before the National Association of Manufacturers of New York.

The lecturer spoke of the extreme ignorance of American exporters in regard to the Uruguayan market. "Consider," he said, "the market that Uruguay means to you. Our foreign trade has advanced nearly 120 per cent during the last three years. The result of our transactions with you in 1907 resulted in our sending you a check to the amount of \$2,500,000, which paid our bills; now you send us \$3,000,000 to do the same thing." He pointed out the obstacles surrounding every transaction with the United States, as compared with the ease and facility afforded by European exporters. The logical result is that the importers of the Oriental Republic confine their purchases in the United States to such merchandise as they can not obtain, all conditions being equal, in Europe. Mr. COATES also called the attention of the audience to the great care taken by European exporters in packing their goods, while the American merchant considers his business closed as soon as the merchandise leaves his warehouse.

The great interest with which Mr. COATES's remarks were received was evidenced by the fact that, after the lecture was over, he spent three and a half hours answering all sorts of questions from the hundreds of manufacturers present.

Señor JOSÉ RICHLING, Consul-General of Uruguay in the United States, also spoke, supplementing Mr. COATES's address with some additional data. He said in part:

In the per capita foreign trade of the American continent my country holds third place, the first and second being held by Chile and Argentine, respectively. The per capita trade of the United States, of which you are so justly proud, is \$36, and you will be surprised when I tell you that in Uruguay it is double. In 1909 Uruguay showed a credit balance of over 10 per cent, which gives her sixth place in continental America, coming immediately after Brazil, Salvador, Mexico, Paraguay, and Argentine.

Naturally, owing to the closer proximity of the Central American republics, the exporters here are more familiar with the conditions existing in and the advantages offered by these countries than they are with those of Uruguay, therefore it is not astonishing that travelers calling at my office after returning from Uruguay express such surprise at the commercial capabilities of the River Plate countries and the unsuspected level of high civilization, and invariably say: "A new world has been opened to me."

Owing to this ignorance on the part of manufacturers here the River Plate countries have been overlooked. As you all know, during the last decade American exporters have been directing their attention to the Far East, but they have not found the expansion of trade as great by any means as they anticipated, and they are only just beginning to realize the more promising conditions offered by South America. On looking it up I find that the export of American goods to China, British India, and Japan in 1907 amounted to \$71,784,702 and in 1909 it amounted only to \$54,483,774, showing a decrease of \$17,300,928 in two years. Taking the same period, in 1907 the exports of Argentine, Brazil, and Uruguay amounted to \$54,203,668 and in 1909 were \$54,600,570, showing an increase of \$396,902; and in the first seven months of the present year there was a further decrease of \$3,000,000 in the exports to China, although Japan seemed to be holding her own in comparisons with the preceding years. The exports to Argentine, Brazil, and Uruguay have shown an increase of more than \$8,000,000 in the same period. I do not wish to burden you with a lot of figures, but I am compelled to use them, for, as you know, figures talk, and I also use them to show you how the South American countries are forging ahead; and here I might say that too much credit can not be given to organizations such as the National Association of Manufacturers, and to the steamship companies with their magnificent steamers plying between here and the River Plate, for the valuable aid they have given in bringing about this great development in the South American trade, and in their effort to make known to Americans the vast resources of those countries.

Do you know that last year Argentina, Brazil, and Uruguay bought \$40,000,000 of cotton goods, only 1 per cent of which was exported from the United States? Do you see any reason why America should not have furnished the greater part of this? It is not because the cost of production abroad is less than it is here, for this argument would apply to all products, such as machinery, agricultural implements, shoe and leather goods, etc., the trade for which is almost wholly controlled by America, but it is simply due to the ignorance of the American traders. It was not so long ago that an American commercial traveler arrived in Montevideo on his way to Buenos Aires and stopped to pay a call to the American consul there. After the usual preliminaries the conversation turned to the discussion of business in Montevideo, and the consul asked him why he did not endeavor to do business there, and, to make a long story short, he did so, and with such good results that in a very short time out of the profits made he was able to more than pay the expenses incurred for the entire trip to South America.

Through the exemplary administration in Uruguay that country has gained a yearly surplus of a couple of million dollars, which money is being used for public works and in the general development of the country. It had the gold standard before the United

States adopted it. Since its existence as an independent country, all government debts have been met promptly, and the interest on foreign loans often paid in advance; in fact, the Government is daily offered loans by prominent European bankers on conditions and terms which would be a temptation to more than one European country, and the only guaranty they ask is the signature of our Secretary of the Treasury. I know of no country where the commercial honesty is so proverbial, or with a lower percentage of business failures as in Uruguay.

In regard to raw materials which Uruguay sells to the United States this is another instance where American traders show their lack of knowledge of South American products. Take wool for instance. They buy it at the European sales and very frequently it is Uruguayan wool they are actually buying. How much cheaper would it have been if they had sent their wool buyers direct to Uruguay to buy, thereby saving the additional cost of freight, insurance, commission, and exchange which they pay to the European market. The same may be said of the sale of bones, horns, hoof, horsehair, tallow, fertilizers, minerals, fruits, and feathers, etc. From all this you can readily see the mutual benefit to be derived from a better acquaintance with your neighbors in the River Plate countries.

COMMERCE FOR FIRST SIX MONTHS.

The "Statistical Reform in Uruguay" gives the total export and import trade for the first six months at 877,965 metric tons, of which 654,489 metric tons are imports, 216,115 exports, and 7,361 in transit.

An effort is being made to have the valuation of the exports and imports included in future statistical reports.

MERCHANT MARINE.

Consul FREDERIC W. GODING, of Montevideo, quotes from the official statistics a list of vessels with Uruguayan registers, the home port being Uruguay, viz: Steamers, 16, of 22,565 tons; barks, 15, of 13,770 tons; schooners, 2, of 910 tons; 1 polacco of 549 tons, and 1 pilot boat of 157 tons; total, 35 vessels, of 37,951 tons.

DECREE EXEMPTING MANGANESE ORE FROM EXPORT DUTIES.

According to the "Diario Oficial," a legislative decree has been enacted exempting manganese ores from export duties for a period of ten years. This exemption does not extend to the surtax levied for building the port at Montevideo.

CEREAL STATISTICS.

The "Diario Oficial, of Uruguay, of September 18, 1910, publishes the report of the agricultural inspector on the grain production of the Republic during the year 1909, from which the following data is extracted:

The total area of land under grain cultivation in the Republic in 1901 was 508,915 hectares (about 1,257,600 acres), against 460,503 hectares in 1905 and 477,174 in 1900.

The area devoted to the cultivation of wheat has not increased. In 1900 it was 328,488 hectares, gradually declining to 247,606 in 1908, and rising to 276,787 in 1909—practically the same figures as in 1901.

The area devoted to maize, on the other hand, has increased. In 1900 it was 145,668 hectares, rising to 181,558 in 1901, after which it fell gradually to 166,891 in 1906, rising to 212,154 in 1907. No figures are given for the year 1908, but in 1909 there were 203,268 hectares.

The cultivation of oats has increased steadily, growing from only 40 hectares in 1900 to 1,967 in 1907, 3,509 in 1908, and 6,891 in 1909.

Barley also shows a steady increase from 643 hectares in 1900 to 1,883 in 1907, 2,007 in 1908, and 3,487 in 1909.

The cultivation of linseed has fluctuated considerably, the figures being 1,325 hectares in 1900, 33,932 in 1903, 18,485 in 1906, 29,529 in 1907, 25,680 in 1908, and 18,341 in 1909. This plant, we may add, is cultivated for the seed and the oil rather than the fiber.

Canary seed (*phalaris canariensis*) has been very irregularly cultivated, the figures being 1,010 hectares in 1900, 541 in 1903, 2,442 in 1905, 3,350 in 1906, 2,556 in 1907, 298 in 1908, and only 141 in 1909.

The production in tons during 1909 was as follows: Wheat, 233,910; linseed, 13,259; oats, 6,710; barley, 3,072; birdseed, 119; maize, 169,464.

The cereal harvest for the season 1908-9 may be summarized as follows, column A representing the number of kilograms sown, B the number of hectares cultivated, and C the number of kilograms reaped:

	A.	B.	C.
Wheat.....	18,915,529	276,787	233,910,034
Linseed.....	592,959	18,341	13,259,821
Oats.....	458,156	6,891	6,710,645
Barley.....	238,089	3,487	3,072,202
Canary seed.....	5,319	141	119,130
Maize.....	2,534,739	203,268	169,464,089

VENEZUELA

INVITATION TO THE CENTENARY OF INDEPENDENCE.

In a resolution dated the 6th of October last, the President of the United States of Venezuela has decided to invite the following nations to send representatives to the celebration of the centenary

of the independence of the Republic. This is to take place during the "Great Week" (Semana Magna) of July, 1911, commencing on Sunday, the 2d: Spain, the mother country, as a manifestation of filial affection; Bolivia, Colombia, Ecuador, and Peru, the sister Republics liberated by Bolivar; Great Britain, in recognition of the assistance she rendered in the struggle for emancipation; the Argentine Republic and Brazil, as a token of gratitude for their friendly attitude in Venezuela's days of trial; the United States, the first nation that recognized the independence of Venezuela; Haiti, for the support she gave the Venezuelans in their war of independence; and Mexico, to reciprocate the invitation she sent to Venezuela to participate in her centennial celebration.

RAILWAY MOVEMENT, FIRST QUARTER OF 1910.

According to figures published by the Director-General of Statistics of Venezuela, in the "Gaceta Oficial" of October 11, the railway traffic in the Republic during the first three months of 1910 was as follows: Number of passengers, 140,971; railroad fare, 467,994.44 bolivars; merchandise transported, 55,516,008 killograms; revenues, 2,567,795.64 bolivars; expenditures, 1,568,162.21 bolivars.

POSTPONEMENT OF THE LATIN-AMERICAN TELEGRAPH CONGRESS.

The Supreme Government of Venezuela has decided to postpone the date for the holding of the Telegraph Congress of the Latin-American Republics, which, by executive decree of March 19, 1910, had been fixed for December 9, 1910. The new date assigned for the conference will be announced later.

THE BOLIVAR MEMORIAL CONGRESS OF 1911.

By resolution of October 1, 1910, Gen. JUAN VICENTE GOMEZ, President of the Republic of Venezuela, has instructed the Minister for Foreign Affairs to invite the Governments of Bolivia, Colombia, Ecuador, and Peru to send representatives to the First Congress of States liberated by BOLIVAR, to be held in Caracas during the first five days of July, 1911, for the purpose of discussing the following subjects:

- (a) Convention to reduce the postage rates among the five nations.
- (b) Convention establishing minimum telegraphic rates between the five nations.
- (c) Establishment of a national board in each country, for the purpose of compiling and publishing all unedited documents issued from 1808 to 1830 concerning the five Republics, the expense to be borne by the respective governments, and to effect an exchange of the documents thus published.

(d) Study of the means of establishing more rapid communication, both by land and sea, between the five nations.

(e) Recommendation of the most advantageous and practicable methods of securing uniformity in consular powers.

(f) Examination of such points of international law as may be in conflict with each other and suggestion of the best means of harmonizing them.

(g) Recommendation of the pacific settlement of all questions pending or arising between the five countries.

(h) Suggestion of the most expedient and simple procedure, which may be enforced immediately, pending the conclusion of the various agreements.

By a resolution of the same date, the Federal Executive appointed a committee to draft the rules to govern the Congress. Its members are: Drs. G. T. VILLEGAS PULIDO, CARLOS ALBERTO URBANEJA, T. AGUERREVERE PECANINS, M. A. PONCE, and JULIO C. VELUTINI.

CONTRACTS APPROVED.

The Venezuelan Congress has approved the contract granted early in the year for the construction of an electric railway from the Central Railway at Agua de Maiz to the Tocome River.

The Congress also ratified the concession granted MANUEL RODRIGUEZ AZPURUS, of Caracas, to canalize and establish steamboat service on the rivers Boca de Mangle and Capadare. These rivers are said to pass through a country rich in mahogany, cedar, mangle, etc.

SEED STATION ESTABLISHED.

The Government has recently established a section of plants and seeds under the Agriculture Division of the Ministry of Commerce (Fomento). The seeds will be carefully kept and nurseries planted of seeds or grafted plants. These will be distributed monthly, gratis, to agriculturists with complete instructions as to cultivation, and the department will demand reports from each agriculturist or gardener.

MINING CODE.

The "Gaceta Oficial" of Venezuela for August 6 and 8 contains the text of the new mining code of the Republic passed by the National Congress to supplant the code of August 16, 1909.

CODE OF PUBLIC INSTRUCTION.

The issues of the "Gaceta Oficial" of Venezuela for August 3, 4, and 5, 1910, publish the text of the code of public instruction decreed by the National Congress on June 25 last.

IMPORTANT CONCESSIONS.

The Supreme Government of Venezuela has recently approved the following contracts:

With Dr. ABRAHAM TIRADO, for the construction of a wharf, a custom-house, and a railroad line in Ciudad Bolivar.

With JUAN ROMERO SANSÓN, for the establishment of a plant for preserving fish.

With Col. LISIS MERCHÁN, for the lease of the license tax on pearl fisheries in Santa Margarita Island and in the eastern coast of the Republic.

With Gen. ALEJANDRO DUCHARNE, for the exploitation of plants producing pulp for the manufacture of paper.

ASPHALT AND OIL CONCESSION.

A concession has been granted by the Venezuelan Government for the exploitation of asphalt, oil, and similar products on various islands on the coast of that country.

This is an important concession, and gives the company now operating asphalt rights at Guanoco, in the same district, the control of what are considered the richest oil and petroleum deposits of Venezuela. These deposits, no doubt, have subterranean connection with those of the island of Trinidad. It is understood that the company will immediately begin drilling for oil and locating the asphalt deposits known to exist there.



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